SEARCH REQUEST FORM

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	Requestor's Serial	
	Name: Number:	
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	Pearch Topic:	
	lease write a detailed statement of search tonic. Describe experificable	
	nat may have a special meaning. Give examples or relevant citations, authors keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).	
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STAFF USE ONLY

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STIC-Biotech/ChemLib

87941

From: Sent:

Schultz, James

To:

Monday, March 03, 2003 11:08 AM STIC-Biotech/ChemLib

Subject:

sequence search request for 10/001,844

Hello,

I need a length limited nucleotide sequence search performed on SEQ ID NO:3 (1576 nt long) in the above entitled case, where the maximum size of the returned hit is no longer than 50 nucleotides. Thank you very much,

Doug Schultz

J. Douglas Schultz, Ph.D AU 1635 (Biotechnology) Patent Examiner United States Patent and Trademark Office (703) 308-9355 (703) 746-3973 (fax) Office: CM1 12E18 Mail: CM1 11E12

Point of Contact:
Beverly Shears
Technical Info. Specialist
CM1 1E05 Tel: 308-4994

Searcher:
Phone:
Location:
Date Picked Up:
Date Completed:
Searcher Prep/Review:
Clerical:
Online time:

TYPE OF SEARCH:	
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VENDOR/COST (where applic.)
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Sequence 32, Sequence 110 Sequence 100 Sequence 100 Sequence 100 Sequence 250 Sequence 420 Sequence 420 Sequence 420 Sequence 420 Sequence 420 Sequence 1150	Sequence 533 Sequence 9515 Sequence 9516 Sequence 16, Sequence 12, Sequence 24 Sequence 24 Sequence 405	Sequence 69, App Sequence 15, App Sequence 11, Appl Sequence 12, Appl Sequence 5318, Ap Sequence 141, Appl Sequence 141, Appl	Sequence 13 Sequence 13 Sequence 13 Sequence 11 Sequence 13 Sequence 13 Sequence 251 Sequence 251	Sequence 5, Sequence 8, Sequence 8, Sequence 117/ Sequence 117/ Sequence 11, Sequence 13, Sequence 13, Sequence 11,	Sequence 13698 Sequence 13698 Sequence 17358 Sequence 17358 Sequence 3427, Sequence 3427, Sequence 46863, Sequence 15, App Sequence 21, App	Sequence 903 Sequence 405 Sequence 512 Sequence 472 Sequence 3427 Sequence 498 Sequence 498 Sequence 168 Sequence 168 Sequence 200 Sequence 583 Sequence 583 Sequence 6533 Sequence 6533 Sequence 6533 Sequence 6762
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Sequence 18344, A
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Sequence 4, Appli
                                                                                                                                                                               Sequence 9, Application US/09590211

Sequence 9, Application US/09590211

; GENERAL INFORMATION:
APPLICANT: Rouleau, Guy A.
APPLICANT: Brais, Bernard

TITLE OF INVENTION: Short GCG Expansions in the PAB II Gene
TITLE OF INVENTION: For Occulopharyngeal Muscular Dystrophy and Diagnostic
TITLE OF INVENTION: Thereof

FILE REFERENCE: 3028.1000-000

CURRENT FILING DATE: 2000-06-08

PRIOR APPLICATION NUMBER: US/09/590,211

CURRENT FILING DATE: 1998-12-07

PRIOR FILING DATE: 1998-12-07

PRIOR FILING DATE: 1998-12-09

PRIOR FILING DATE: 1997-12-09

NUMBER OF SEQ ID NOS: 21

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 9

LENGTH: 45

TYPE: DNA

ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 1
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                  US-09-590-211A-9
; Sequence 9, Application US/09590211A
; GENERAL INFORMATION:
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Best Local S
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        APPLICANT: Rouleau, Guy A.
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Local Similarity 83.7%;
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PCT-USO1-47856-4569
PCT-USO2-25943-64136
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Pred. No. 1
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Sequence 64136, A
Sequence 64136, A
Sequence 64136, A
Sequence 64136, A
Sequence 64137, A
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APPLICANT:

Brais, Bernard

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US-09-590-211-8
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Sequence 8, Application US/09590211
GENERAL INFORMATION:
APPLICANT: Rouleau, Guy A.
APPLICANT: Brais, Bernard
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SEQ ID NO 16
LENGTH: 50
TYPE: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: US 09/327,045
PRIOR TILING DATE: 1999-06-07
PRIOR APPLICATION NUMBER: PCT/US00/14988
PRIOR FILING DATE: 2000-05-31
NUMBER OF SEQ ID NOS: 24
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 9
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TITLE OF INVENTION: Targeted Angiogenesis
FILE REFERENCE: 20553b-000611US
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/590,211A
CURRENT FILING DATE: 2000-06-08
PRIOR APPLICATION NUMBER: PCT/CA98/01133
PRIOR FILING DATE: 1998-12-07
PRIOR APPLICATION NUMBER: 2,218,199
PRIOR APPLICATION NUMBER: 2,218,199
                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: Description of Artificial Sequence:annealed
                                                                                                                                                                                                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR FILING DATE: 1997-12-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: SHORT GCG EXPANSIONS IN THE PAB II GENE
TITLE OF INVENTION: FOR OCULOPHARYNGEAL MUSCULAR DYSTROPHY AND DIAGNOSTIC THereof
FILE REFERENCE: 3028.1000-000
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ORGANISM: Homo sapiens
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Falkner, Falko-Guenter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dorner, Friedrich
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                                                                                                                                                                                                                                         2.0%; Score 31.4; DB 30; Length 50; B5.4%; Pred No. 1.9e+05;
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PCT-US02-26129-14
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                                                                                                                                                        Sequence 14, Application PC/TUS0226129
GENERAL INFORMATION:
APPLICANT: OriGene Technologies
APPLICANT: OriGene Technologies
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          CURRENT APPLICATION NUMBER: PCT/US02/26129
CURRENT FILING DATE: 2002-08-16
PRIOR APPLICATION NUMBER: US 09/930,181
PRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 18
                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
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SOFTWARE: PatentIn version 3.1
                                                                                                                   TITLE OF INVENTION: FILE REFERENCE: 16U
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PRIOR FILING DATE: 1997-12-09
NUMBER OF SEQ ID NOS: 21
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 8
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SOFTWARE: FastSEQ for Windows Version 4.0
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PRIOR FILING DATE: 1998-12-07
PRIOR APPLICATION NUMBER: 2,218,199
PRIOR FILING DATE: 1997-12-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: SHORT GCG EXPANSIONS IN THE PAB II GENE TITLE OF INVENTION: FOR OCULOPHARYNGEAL MUSCULAR DYSTROPHY AND DIAGNOSTIC THEIFILE REFERENCE: 3028.1000-000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/590,211A CURRENT FILING DATE: 2000-06-08
                                                                                                                                                                                                                                                                                                                           APPLICANT: Rouleau, Guy A. APPLICANT: Brais, Bernard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
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CURRENT FILING DATE: 2000-06-08
PRIOR APPLICATION NUMBER: PCT/CA98/01133
PRIOR FILING DATE: 1998-12-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Homo sapiens
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ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 42
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Similarity 82.5%;
                                                                                                       OriGene Technologies
TVENTION: Scrine Protein Kinase in Brain and Pancreas
NCE: 16U 101 PCT
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; SEQ ID NO 14
; LENGTH: 50
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-195-072-14
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US-10-195-072-14
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GENERAL INFORMATION:
APPLICANT: OriGene Technologies
TITLE OF INVENTION: Full-Length Serine Protein Kinase in Brain and Pancreas
FILE REFERENCE: 16U 101 C1
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GENERAL INFORMATION:
APPLICANT: OriGene Technologies
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CURRENT FILING DATE: 2002-07-15
PRIOR APPLICATION NUMBER: US 09/930,181
PRIOR FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 18
                                                                Matches
                                                                                           Query Match
                                                                                                                                                                                                                                   TITLE OF INVENTION: Full-Length Serine Protein Kinase in Brain and Pancreas FILE REFERENCE: 16U 101 C2 CURRENT APPLICATION NUMBER: US/10/195,072 CURRENT FILING DATE: 2002-07-15 PRIOR APPLICATION NUMBER: US 09/930,181 PRIOR FILING DATE: 2001-08-16
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                                                                                                                                                                                                      SOFTWARE: PatentIn version 3.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
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1 GGCGCGGGCGCGCCTCGGCGGCGGCGGCGGCGGCGGCGGAAGC 49
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Pred. No. 6.2e+05;
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RESULT 9 US-09-590-211-7

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CURRENT APPLICATION NUMBER: US/09/590,211
CURRENT EILING DATE: 2000-06-08
PRIOR FILING DATE: 1998-12-07
PRIOR FILING DATE: 1998-12-07
PRIOR APPLICATION NUMBER: 2.218,199
PRIOR FILING DATE: 1997-12-09
NUMBER OF SEQ ID NOS: 21
SOFTWARE: FastSEQ for Windows Version 4.0
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                                                                                                         Sequence 289, Application US/09992665; GENERAL INFORMATION:
APPLICANT: Kaia Palm
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US-09-992-665-289/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 7
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Best Local :
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APPLICANT: Brais, Bernard
TITLE OF INVENTION: SHORT GCG EXPANSIONS IN THE PAB II GENE
TITLE OF INVENTION: FOR OCCULOPHARYNGEAL MUSCULAR DYSTROPHY AND DIAGNOSTIC THEREFILE REFERENCE: 3028.1000-000
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CURRENT FILING DATE: 2000-06-08
PRIOR APPLICATION NUMBER: PCT/CA98/01133
PRIOR FILING DATE: 1998-12-07
PRIOR APPLICATION NUMBER: 2,218,199
PRIOR FILING DATE: 1997-12-09
PRIOR FILING DATE: 1997-12-09
                                                                                                                                                                                                                                                                                                                                                                 Matches
TITLE OF INVENTION: PROFILING TUMOR SPECIFIC MARKERS FOR THE TITLE OF INVENTION: DIAGNOSIS AND TREATMENT OF NEOPLASTIC DISEASE FILE REFERENCE: CEMINES.002A CURRENT APPLICATION NUMBER: US/09/992,665
CURRENT FILING DATE: 2001-11-13
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ORGANISM: Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Homo sapiens
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Local Similarity 83.8%;
les 31; Conservation
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Pred. No. 8.4e+05;
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US-09-590-211A-6
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        PRIOR APPLICATION NUMBER: PCT/CA98/01133
PRIOR FILING DATE: 1998-12-07
PRIOR APPLICATION NUMBER: 2,218,199
PRIOR FILING DATE: 1997-12-09
NUMBER OF SEQ ID NOS: 21
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 6
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                                                                                                                    APPLICANT: Rouleau, Guy A.
APPLICANT: Brais, Bernard
TITLE OF INVENTION: SHORT GCG EXPANSIONS IN THE PAB II GENE
TITLE OF INVENTION: FOR COULOPHARYNGEAL MUSCULAR DYSTROPHY AND DIAGNOSTIC THereof
FILE REFERENCE: 3028,1000-000
CURRENT APPLICATION NUMBER: US/09/590,211A
CURRENT FILING DATE: 2000-06-08
CURRENT FILING DATE: 2000-06-08
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PRIOR ETLING DATE: 1998-12-07
PRIOR APPLICATION NUMBER: 2,218,199
PRIOR FILING DATE: 1997-12-09
NUMBER OF SEO ID NOS: 21
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 289
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CURRENT APPLICATION NUMBER: US/09/590,211
CURRENT FILING DATE: 2000-06-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Short GCG Expansions in the PAB II Gene TITLE OF INVENTION: for Oculopharyngeal Muscular Dystrophy and Diagnostic TITLE OF INVENTION: Thereof
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LENGTH: 36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Rouleau, Guy A. APPLICANT: Brais, Bernard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 36
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/249,508 PRIOR FILING DATE: 2000-11-16
                                                                                                                                                                                                                                                                                                                                                                                                                                  1353 GCGGCGGGGGACCGCGGGGGGGGGGGGGGA 1385
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                                                                                                                                                                                                                                                                                                                                                                                             4 GCGGCGGCGGCGGCGGCGGCGGCGGCA 36
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87.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 26.6; DB 22;
Pred. No. 1.1e+06;
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PCT-US00-1984,3-13
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; Sequence 2, Application US/09423041A
   Query Match
Best Local Similarity
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                                                                                                                                                            NUMBER OF SEQ ID NOS:
SOFTWARE: PatentIn V
SEQ ID NO 13
LENGTH: 45
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 2
LENGTH: 36
                                                                                                                                                                                                          PRIOR APPLICATION NUMBER: 60/
PRIOR FILING DATE: 1999-07-23
NUMBER OF SEQ ID NOS: 18
                                                                                                                                                                                                                                                         FILE REFERENCE: 00415-02
CURRENT APPLICATION NUMBER: PCT/US00/19843
CURRENT FILING DATE: 2000-07-21
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                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION:
                                                                      OTHER INFORMATION: Description of Artificial Sequence:nucleic acid OTHER INFORMATION: linker
                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILE REFERENCE: BU-042XX
CURRENT APPLICATION NUMBER: US/09/423,041A
CURRENT FILING DATE: 2000-04-05
PRIOR APPLICATION NUMBER: PCT/US98/08616
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Best Local :
                                                                                                                      ORGANISM: Artificial Sequence
                                                                                                                                               TYPE: DNA
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PRIOR APPLICATION NUMBER: US60/045,078
PRIOR FILING DATE: 1997-04-29
NUMBER OF SEQ ID NOS: 44
                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: FastSEQ for Windows Version 4.0
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TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TARGETED
TITLE OF INVENTION: DNA DIFFERENTIAL DISPLAY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1351 CAGCGGCGGCGGGACCGCGGGGGGGGGGGGGGAG 1386
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                                                                                                                                                                                             PatentIn Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                       Herr, John C.
                                                                                                                                                                                                                                                                                                                                                  Norton, Elizabeth J.
Deikman, Alan B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                              Antigen
                                                                                                                                                                                                                                                                                                                          Recombinant Antibody Directed Against Human Sperm
   1.7%;
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Score 26.4; DB 1;
Pred. No. 1.2e+06;
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              Length 45;
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US-10-031-783-13
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Sequence 17709, Application US/09606755
GENERAL INFORMATION:
APPLICANT: Havukkala, Ilka
APPLICANT: Shenk, Michael A.
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GENERAL INFORMATION:
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                                                                          US-09-857-723-178/c
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APPLICANT: Norton, Elizabeth J.
APPLICANT: Deikman, Alan B.
TITLE OF INVENTION: Recombinant Antibody Directed Against Human Sperm
TITLE OF INVENTION: Antigen
FILE REFERENCE: 00415-02
Sequence 178, Application US/09857723 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 17709
LENGTH: 50
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CURRENT FILING DATE: 2002-10-23
PRIOR APPLICATION NUMBER: 60/145,512
PRIOR FILING DATE: 1999-07-23
NUMBER OF SEQ ID NOS: 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/606,755
CURRENT FILING DATE: 2000-06-22
NUMBER OF SEQ ID NOS: 17747
SOFTWARE: FastSEQ for Windows Version 4.0
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es 33; Conservative
                                                                                                                                                                                                                                                                                                  19 GAGAGAGCGAGCGGGCGAGCCGGAGCGAAGGGGAAAGCGCAAGAGAGA 68
                                                                                                                                                                                                                                                                                                                                                                                                        Match 1.6%;
Local Similarity 70.0%;
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Pred. No. 1.2e+06;
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; NAME/KEY: satellite
; LOCATION: (1)...(50)
US-09-857-723-178
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US-09-857-723-199/c Sequence 199, Application US/09857723; GENERAL INFORMATION:
                                                                                                                                                                                                                                               US-09-857-723-187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: 60/111,670
PRIOR FILING DATE: 1998-12-10
NUMBER OF SEQ ID NOS: 292
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ.ID NO 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 187, Application US/09857723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/857,723 CURRENT FILING DATE: 2001-06-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Meehan, Dawn
APPLICANT: Garcia, Denise K.
TITLE OF INVENTION: NUCLEIC ACID MOLECULES OF SHRIMP
FILE REFERENCE: 1322.1023-003
                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Alcivar-Warren, Acacia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Garcia, Denise K.
TITLE OF INVENTION: NUCLEIC ACID MOLECULES OF SHRIMP
FILE REFERENCE: 1322.1023-003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Alcivar-Warren, Acacia APPLICANT: Xu, Zhenkang
                                                                                                                                                                                            Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: 60/111,670 PRIOR FILING DATE: 1998-12-10 NUMBER OF SEQ ID NOS: 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/857,723 CURRENT FILING DATE: 2001-06-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 292
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM: Litopenaeus vannamei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURE:
                                                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                 ORGANISM: Litopenaeus vannamei
                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                                                                                                                                                               NAME/KEY: satellite
                                                                                                                                                                                                                                                                                                                                                    LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19 GAGAGAGCGAGCGGAGCCGGAGCGAAGGAAAGCGCAAGAGAGAGA 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                       20 AGAGAGCGAGCGGGGGAGCGAGGGAAGGGAAAGCGCAAGAGAGAGAG 69
                                                                                                        50
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Similarity 70.0%;
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Fan, Yongjun
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Dhar, Arun K.
Fan, Yongjun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Meehan, Dawn
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                                                                                                                                                                             Conservative
                                                                                                                                                                                              1.6%;
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pred. No. 1.4e+06;
0; Mismatches 15
                                                                                                                                                                                 0;
                                                                                                                                                                                                Score 26; DB 32;
Pred. No. 1.4e+06;
                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 32; Length 50;
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                                                                                                                                                                                     Indels
                                                                                                                                                                                     0;
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APPLICANT: Alcivar-Warren, Acacia

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; MOLECULE TYPE: other nucleic acid

; DESCRIPTION: /desc = "DNA"

US-08-715-713-17
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; FEATURE:
; NAME/KEY: satellite
; LOCATION: (1)...(50)
US-09-857-723-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 17, Application US/08715713
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 292
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 199
                                                                                                                                 TELEFAX: (415) 397-8338
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/857,723
CURRENT FILING DATE: 2001-06-07
PRIOR APPLICATION NUMBER: 60/111,670
PRIOR FILING DATE: 1998-12-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Garcia, Denise K.
TITLE OF INVENTION: NUCLEIC ACID MOLECULES OF SHRIMP
FILE REFERENCE: 1322.1023-003
                                          TYPE: nucrery
STRANDEDNESS: doub
                                                                                                                                                                                                                            APPLICATION NUMBER: US/08
FILING DATE: 19-SEP-1996
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Carroll, Peter G.
                                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                         REGISTRATION NUMBER: 32,837
REFERENCE/DOCKET NUMBER: UM
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 705-8410
                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Litopenaeus vannamei
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Mortlock, Douglas P.
APPLICANT: Nelson, Matt
TITLE OF INVENTION: PROMOTER CAPTURE
NUMBER OF SEQUENCES: 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ENGTH:
                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: San Francisco
                                                                                                  LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19 GAGAGAGCGAGCGGGGGGGGGGGGGGGGAGGGGAAGCGCAAGAGAGA 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Match 1.6%; Score 26; DB 32; Length 50; Local Similarity 70.0%; Pred. No. 1.4e+06;
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                                                                                 H: 50 base pairs nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                          94104
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Meehan,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fan, Yongjun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Xu, Zhenkang
                                                                                                                                                                                                                                                                                                                                                                                                                                  United States of America
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Innis, Jeffrey W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Medlen & Carroll, LLP
                                                                                                                                                                                                                                                                                                                                                                                 Floppy disk
                                                             double
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dawn
                                                                                                                                                                                                                                                                                              US/08/715,713
                                                                                                                                                                                                UM-02402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-396-196F-67173
                                                                                                                                                                              SEQ ID NO 67174
LENGTH: 25
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                                                                   Matches
                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 67173, Application US/09396196F GENERAL INFORMATION:
                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/09/396,196F CURRENT FILING DATE: 2001-09-15 PRIOR APPLICATION NUMBER: 60/100,678 PRIOR FILING DATE: 1998-09-17 NUMBER OF SEO ID NOS: 127806 SOFTWARE: FASISEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                               APPLICANT: Affymetrix, Inc.
TITLE OF INVENTION: Methods of Genetic Analysis
FILE REFERENCE: 3101.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQ ID NO 67173
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                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Michael Mittmann
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                                                                                                                                                              TYPE: DNA
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/396,196F CURRENT FILING DATE: 2001-09-15 PRIOR APPLICATION NUMBER: 60/100,678 PRIOR FILING DATE: 1998-09-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Affymetrix, Inc.
TITLE OF INVENTION: Methods of Genetic Analysis
FILE REFERENCE: 3101.1.
NUMBER OF SEQ ID NOS: 127806
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Michael Mittmann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 25
TYPE: DNA
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nes 25; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 GCATCCACTGGTACTCGCAGCTGCT 25
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                                                                                                                                                                                                                                                                                                                                                     David Mack
David Lockhart
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     David Lockhart Affymetrix, Inc.
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                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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77.5%;
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100.0%; Pred. No. 2.1e+0;
tive 0; Mismatches
                                                                          1.6%; Score 25; DB 17;
100.0%; Pred. No. 2.1e+06;
                                                            o;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 25.6; DB 11
Pred. No. 1.6e+06;
                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2.1e+06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 11; Length 50;
                                                                                         Length 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 25;
                                                            Indels
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                                                           0;
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                                                         0;
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US-09-396-196F-67183

RESULT 24

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RESULT 25
US-09-396-196G-67173
US-09-396-196G-67173, Application US/09396196G
GENERAL INFORMATION:
APPLICANT: Michael Mittmann
APPLICANT: David Mack
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; TYPE: DNA; mus musculus; ORGANISM: mus musculus US-09-396-196F-67183
                                                                                                                                                                                                                                                               ; ORGANISM: mus musculus US-09-396-196G-67173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 67183, Application US/09396196F
GENERAL INFORMATION:
APPLICANT: Michael Mittmann
APPLICANT: David Mack
APPLICANT: David Mack
APPLICANT: Affymetrix, Inc.
TITLE OF INVENTION: Methods of Genetic Analysis
FILE REFERENCE: 3101.1
                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/396,196F
CURRENT FILING DATE: 2001-09-15
PRIOR APPLICATION NUMBER: 60/100,678
PRIOR FILING DATE: 1998-09-17
PRIOR FILING DATE: 1998-09-17
NUMBER OF SEQ ID NOS: 127806
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 67183
LENGTH: 25
                Search completed: March 14, 2003, 01:02:17
Job time : 3791 secs
                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/396,196G
CURRENT FILING DATE: 1999-09-15
PRIOR APPLICATION NUMBER: 60/100,678
PRIOR FILING DATE: 1998-09-17
NUMBER OF SEQ ID NOS: 127806
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 67173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
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                                                                                                                                                                    Query Match 1.6%; Score 25; DB 17; Length 25; Best Local Similarity 100.0%; Pred. No. 2.1e+06; Matches 25; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: David Mack
APPLICANT: David Lockhart
APPLICANT: Affymetrix, Inc.
TITLE OF INVENTION: Methods of Genetic Analysis
FILE REFERENCE: 3101.1
                                                                                                                                                                                                                                                                                                            TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          / Match 1.6%; Score 25; DB 17; Length 25; Local Similarity 100.0%; Pred. No. 2.1e+06; nes 25; Conservative 0; Mismatches 0; Indels
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Run

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Result
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Maximum Match 100%
Listing first 1000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence:
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Perfect score:
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                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                               Score
                                                                                                                                                                                                       24
                                                                                                                                                                                                                                                                                                                                                                                       26
                                                                                                                                                                                                                                                                                                                                                                                       30
6.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pending_Patents_NA_New:*

1: /cgn2_6/ptodata/1/pna/PCT_NEW_COMB.seq:*

2: /cgn2_6/ptodata/1/pna/US06_NEW_COMB.seq:*

3: /cgn2_6/ptodata/1/pna/US08_NEW_COMB.seq:*

4: /cgn2_6/ptodata/1/pna/US08_NEW_COMB.seq:*

5: /cgn2_6/ptodata/1/pna/US09_NEW_COMB.seq:*

6: /cgn2_6/ptodata/1/pna/US09_NEW_COMB.seq:*

7: /cgn2_6/ptodata/1/pna/US10_NEW_COMB.seq:*

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966 17.2 1.1 25 9 US-60-427-808-323982 966 17.2 1.1 25 9 US-60-427-808-323983 967 17.2 1.1 25 9 US-60-427-808-392593 968 17.2 1.1 25 9 US-60-427-808-392595 969 17.2 1.1 25 9 US-60-427-808-13306 970 17.2 1.1 25 9 US-60-427-836-184860 971 17.2 1.1 25 9 US-60-427-836-247311 972 17.2 1.1 25 9 US-60-427-836-247311 973 17.2 1.1 25 9 US-60-427-836-289180 973 17.2 1.1 25 9 US-60-427-836-386045	959 17.2 1.1 25 8 US-10-355-577-683836 960 17.2 1.1 25 9 US-60-417-190-120038 961 17.2 1.1 25 9 US-60-417-190-120049 962 17.2 1.1 25 9 US-60-417-190-120045 963 17.2 1.1 25 9 US-60-417-190-120046 964 17.2 1.1 25 9 US-60-427-808-164185	952 17.2 1.1 25 6 US-09-660-222-123078 953 17.2 1.1 25 6 US-09-660-222-123071 954 17.2 1.1 25 8 US-10-09-653B-114707 955 17.2 1.1 25 8 US-10-355-577-361802 956 17.2 1.1 25 8 US-10-355-577-574883 957 17.2 1.1 25 8 US-10-355-577-601568 958 17.2 1.1 25 8 US-10-355-577-601569	944 17.2 1.1 24 8 US-10-303-778-17317 945 17.2 1.1 24 8 US-10-310-188-15480 946 17.2 1.1 24 8 US-10-310-188-2953 947 17.2 1.1 24 8 US-10-310-188-41628 948 17.2 1.1 24 8 US-10-310-188-70671 949 17.2 1.1 24 8 US-10-310-188-70671 940 17.2 1.1 24 8 US-10-378-437-12 950 17.2 1.1 25 6 US-09-660-222-21387 951 17.2 1.1 25 6 US-09-660-222-21387	935 17,4 1.1 50 8 US-10-325-899-6258 936 17.2 1.1 22 8 US-10-310-188-29465 937 17,2 1.1 22 8 US-10-310-188-58413 938 17,2 1.1 22 8 US-10-310-188-60589 939 17,2 1.1 22 8 US-10-310-188-60694 940 17,2 1.1 23 8 US-10-310-188-29478 941 17,2 1.1 23 8 US-10-310-188-29478 942 17,2 1.1 23 8 US-10-310-188-29478 943 17,2 1.1 24 8 US-10-310-188-9488	17.4 1.1 50 6 US-09-613-990-15638 1924 17.4 1.1 50 6 US-09-65558-23 1925 17.4 1.1 50 6 US-09-490-153-117 1926 17.4 1.1 50 6 US-09-912-293-49078 1927 17.4 1.1 50 6 US-09-912-293-85925 1928 17.4 1.1 50 7 US-10-287-787-9707 1929 17.4 1.1 50 8 US-10-066-965A-32 1930 17.4 1.1 50 8 US-10-066-965A-32 1931 17.4 1.1 50 8 US-10-066-965A-33 1931 17.4 1.1 50 8 US-10-325-899-1357 1932 17.4 1.1 50 8 US-10-325-899-2488 1933 17.4 1.1 50 8 US-10-325-899-2488 1934 17.4 1.1 50 8 US-10-325-899-3562	17.4 1.1 47 7 US-10-299-054A-9816 17.4 1.1 47 7 US-10-287-787-6060 17.4 1.1 47 7 US-10-287-787-7518 17.4 1.1 47 7 US-10-287-787-18121 17.4 1.1 47 7 US-10-287-787-24713 17.4 1.1 47 7 US-10-287-787-24713 17.4 1.1 47 8 US-10-349-143-3847 17.4 1.1 48 6 US-09-788-506A-10 17.4 1.1 48 7 US-10-287-787-16488 17.4 1.1 48 7 US-10-287-787-6979 17.4 1.1 49 7 US-10-287-787-6979 17.4 1.1 49 6 US-09-785-632B-8 17.4 1.1 49 6 US-09-787-6929 17.4 1.1 49 6 US-09-513-999C-15423	17.4 1.1 45 7 US-10-299-054A-10846 17.4 1.1 45 7 US-10-299-054A-10848 17.4 1.1 45 7 US-10-299-054A-3283 17.4 1.1 46 7 US-10-299-054A-3283 17.4 1.1 46 7 US-10-299-054A-3283 17.4 1.1 46 7 US-10-287-787-20535 17.4 1.1 46 7 US-10-287-787-20535 17.4 1.1 46 7 US-10-287-787-25947 17.4 1.1 47 7 US-10-299-054A-2372 17.4 1.1 47 7 US-10-299-054A-372
965 17.2 1.1 25 9 US-60-427-808-323982 Sequence 966 17.2 1.1 25 9 US-60-427-808-323983 Sequence 967 17.2 1.1 25 9 US-60-427-808-32595 Sequence 968 17.2 1.1 25 9 US-60-427-808-392595 Sequence 969 17.2 1.1 25 9 US-60-427-836-181306 Sequence 970 17.2 1.1 25 9 US-60-427-836-184860 Sequence 971 17.2 1.1 25 9 US-60-427-836-247311 Sequence 972 17.2 1.1 25 9 US-60-427-836-247311 Sequence 973 17.2 1.1 25 9 US-60-427-836-246045 Sequence	959 17.2 1.1 25 8 US-10-355-577-683836 Sequence 960 17.2 1.1 25 9 US-60-417-190-120038 Sequence 961 17.2 1.1 25 9 US-60-417-190-120039 Sequence 962 17.2 1.1 25 9 US-60-417-190-120045 Sequence 963 17.2 1.1 25 9 US-60-417-190-120045 Sequence 964 17.2 1.1 25 9 US-60-417-190-120046 Sequence 965 17.2 1.1 25 9 US-60-427-808-164185 Sequence	952 17.2 1.1 25 6 US-09-660-222-133028 Sequence 953 17.2 1.1 25 6 US-09-660-222-136971 Sequence 954 17.2 1.1 25 8 US-10-098-263B-114707 Sequence 955 17.2 1.1 25 8 US-10-355-577-361802 Sequence 956 17.2 1.1 25 8 US-10-355-577-574883 Sequence 957 17.2 1.1 25 8 US-10-355-577-601568 Sequence 958 17.2 1.1 25 8 US-10-355-577-601568 Sequence 959 17.2 1.1 25 8 US-10-355-577-601569 Sequence	944 17.2 1.1 24 8 US-10-303-778-17317 Sequence 945 17.2 1.1 24 8 US-10-310-188-15480 Sequence 946 17.2 1.1 24 8 US-10-310-188-29553 Sequence 947 17.2 1.1 24 8 US-10-310-188-41628 Sequence 948 17.2 1.1 24 8 US-10-310-188-41628 Sequence 948 17.2 1.1 24 8 US-10-310-188-70671 Sequence 949 17.2 1.1 24 8 US-10-310-188-70671 Sequence 950 17.2 1.1 25 6 US-09-660-222-21387 Sequence 951 17.2 1.1 25 6 US-09-660-222-21387 Sequence	935 17.4 1.1 50 8 US-10-325-899-6258 Sequence 936 17.2 1.1 22 8 US-10-310-188-29465 Sequence 937 17.2 1.1 22 8 US-10-310-188-58413 Sequence 938 17.2 1.1 22 8 US-10-310-188-6088 Sequence 939 17.2 1.1 22 8 US-10-310-188-6088 Sequence 940 17.2 1.1 22 8 US-10-310-188-60894 Sequence 940 17.2 1.1 23 8 US-10-310-188-948 Sequence 941 17.2 1.1 23 8 US-10-310-188-9488 Sequence 942 17.2 1.1 23 8 US-10-310-188-9488 Sequence 943 17.2 1.1 24 8 US-10-310-188-9488 Sequence	17.4 1.1 50 6 US-09-513-999C-15638 Sequence 924 17.4 1.1 50 6 US-09-7555A-23 Sequence 925 17.4 1.1 50 6 US-09-765-555A-23 Sequence 926 17.4 1.1 50 6 US-09-912-293-49078 Sequence 927 17.4 1.1 50 6 US-09-912-293-85925 Sequence 928 17.4 1.1 50 6 US-09-912-293-85925 Sequence 928 17.4 1.1 50 7 US-10-287-787-977 Sequence 929 17.4 1.1 50 8 US-10-066-965A-32 Sequence 930 17.4 1.1 50 8 US-10-066-965A-32 Sequence 931 17.4 1.1 50 8 US-10-325-899-1357 Sequence 932 17.4 1.1 50 8 US-10-325-899-3562 Sequence 933 17.4 1.1 50 8 US-10-325-899-3562 Sequence 934 17.4 1.1 50 8 US-10-325-899-3562 Sequence 934 17.4 1.1 50 8 US-10-325-899-3562 Sequence 934 17.4 1.1 50 8 US-10-325-899-3562 Sequence	17.4 1.1 47 7 US-10-299-054A-9816 Sequence 17.4 1.1 47 7 US-10-287-787-6060 Sequence 17.4 1.1 47 7 US-10-287-787-7518 Sequence 17.4 1.1 47 7 US-10-287-787-7518 Sequence 17.4 1.1 47 7 US-10-287-787-18121 Sequence 17.4 1.1 47 7 US-10-287-87-24713 Sequence 17.4 1.1 47 8 US-10-287-87-24713 Sequence 17.4 1.1 48 6 US-10-49-143-3847 Sequence 17.4 1.1 48 7 US-10-287-787-16488 Sequence 17.4 1.1 48 7 US-10-287-787-26979 Sequence 17.4 1.1 48 7 US-10-287-787-26979 Sequence 17.4 1.1 49 6 US-09-785-328-8 Sequence 17.4 1.1 49 6 US-09-785-328-8 Sequence 17.4 1.1 50 6 US-09-513-999C-15423 Sequence	17.4 1.1 45 7 US-10-299-054A-10846 Sequence 17.4 1.1 45 7 US-10-299-054A-10848 Sequence 17.4 1.1 45 7 US-10-299-054A-19197 Sequence 17.4 1.1 45 7 US-10-299-054A-3283 Sequence 17.4 1.1 46 7 US-10-299-054A-3283 Sequence 17.4 1.1 46 7 US-10-287-787-20535 Sequence 17.4 1.1 46 7 US-10-287-787-25024 Sequence 17.4 1.1 46 7 US-10-367-892-15747 Sequence 17.4 1.1 47 7 US-10-399-054A-2372 Sequence 17.4 1.1 47 7 US-10-299-054A-8046 Sequence

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RESULT 1
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                                                                                                              RESULT 2
US-10-287-787-7843
                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 6, Application US/10001844 GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: Feldmann, Richard J.; Global Determinants, Inc.
APPLICANT: Feldmann, Richard J.; Global Determinants, Inc.
APPLICANT: Feldmann, Richard J.; Global Determinants, Inc.
APPLICANT: Caulobacter crescentus complete genome.
FILE REFERENCE: Jim Zegeer Law Offices - 703-684-8333
CUGRENT APPLICATION NUMBER: US/10/287,787
CURRENT FILING DATE: 2003-03-03
NUMBER OF SEQ ID NOS: 27958
SOFTWARE: Proprietary
SEQ ID NO 7843
                                                                                                                                                                                                                                                                                                    SEQ ID NO 6
LENGTH: 30
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981
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986
886
                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: ANTISENSE MODULATION OF SHH EXPRESSION EILE REFERENCE: ISPH-0617
CURRENT APPLICATION NUMBER: US/10/001,844
CURRENT FILING DATE: 2001-11-16
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                                                                                                    Sequence 7843,
                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: C. Frank Bennett APPLICANT: Lex M. Cowsert
                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 49
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                         OTHER INFORMATION: PCR Probe
                                                                                                                                                                                                                                                                                ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                           TYPE: DNA
                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                               691 TATCCACTGCTCGGTGAAAGCAGAGAACTC 720
                                                                                                                                                                                                              Local Similarity
                                                                                                                                                         1 TATCCACTGCTCGGTGAAAGCAGAGAACTC 30
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                                                                                                    Application US/10287787
                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                100.0%;
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US-60-427-836-652973

US-60-427-836-653150

US-60-427-836-654282

US-60-427-836-663449

US-10-367-892-21796
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US-10-367-992-7821

US-10-299-054A-3456

US-10-367-892-4362

US-10-287-787-13994

PCT-US02-24774-11

US-10-287-787-19712

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US-10-367-892-964
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US-10-299-054A-649
US-10-299-054A-4199
US-10-299-054A-8978
US-10-299-054A-10686
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US-10-287-787-14822
US-10-287-787-16473
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Pred. No.
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                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                               DB 8;
                                                                                                                                                                                                                 1.4e+04;
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21796, A
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654282,
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13994, A
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; OTHER INFORMATION: Chromosome = 1 Strand = positive ConnectronObjectNumber US-10-287-787-7843
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; Sequence 10448, Application US/10299054A
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                                                                                                                                                                                                                                    SOFTWARE: Proprietary SEQ ID NO 10430
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Best Local
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                                                                                                                                                                                                                                                                  CURRENT FILING DATE: 2003-0
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                                                                                                                                                                                   ORGANISM: Mycobacterium tuberculosis complete genome.
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                                                                                                                                          LOCATION: (3933394)...(3933436)
OTHER INFORMATION: Chromosome =
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77.58;
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pred. No. 5.9e+04;
0; Mismatches 11;
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Pred. No.
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US-10-299-054A-10450
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  Sequence 10450, Application US/10299054A
GENERAL INFORMATION:
APPLICANT: Feldmann, Richard J.; Global Determinants, Inc.
TITLE OF INVENTION: Mycobacterium tuberculosis complete genome.
FILE REFERENCE: Jim Zegeer Law Offices - 703-684-8333
CURRENT APPLICATION NUMBER: US/10/299,054A
CURRENT FILING DATE: 2003-03-03
NUMBER OF SEQ ID NOS: 11910
SOFTWARE: Proprietary
SEQ ID NO 10450
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SEQ ID NO 10449
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APPLICANT: Feldmann, Richard J.; Global Determinants, Inc.
TITLE OF INVENTION: Mycobacterium tuberculosis complete genome.
FILE REFERENCE: Jim Zegeer Law Offices - 703-684-8333
CURRENT APPLICATION NUMBER: US/10/299,054A
CURRENT FILING DATE: 2003-03-03
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TITLE OF INVENTION: Mycobacterium tuberculosis complete genome.
FILE REFERENCE: Jim Zegeer Law Offices - 703-684-8333
CURRENT APPLICATION NUMBER: US/10/299,054A
CURRENT FILING DATE: 2003-03-03
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SOFTWARE: Proprietary
SEQ ID NO 10431
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LENGTH: 43
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OTHER INFORMATION: Chromosome = 1 Strand = positive ConnectronObjectNumber = 12527
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TYPE: DNA
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OTHER INFORMATION: Chromosome = 1 Strand = positive ConnectronobjectNumber = 12507
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TYPE: DNA
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Pred. No. 8
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Pred. No. 8
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US-10-303-778-10110/c
(Sequence 10110, Application US/10303778
(GENERAL INFORMATION:
(GENERAL INFORMATION:
(FORMATION: ROSELTAGENOMICS
(FORMATION: BIOINFORMATICALLY DETECTABLE GROUP OF NOVEL VIRAL)
(FORMATION: REGULATORY GENES AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-126-448-2
           CURRENT APPLICATION NUMBER: US/10/303,778
CURRENT FILING DATE: 2002-11-26
NUMBER OF SEQ ID NOS: 17608
SOFTWARE: PatentIn version 3.1
SEQ ID NO 10110
LENGTH: 25
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APPLICANT: Marliere, Philippe
TITLE OF INVENTION: Method for Diversifying the Chemical
TITLE OF INVENTION: Composition of Proteins Produced in vivo by Genetically
TITLE OF INVENTION: Disabling the Editing Function of their Aminoacyl tRNA
FILE REFERENCE: CABI-004
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TYPE: DNA
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PRIOR FILING DATE: 2001-04-19
NUMBER OF SEQ ID NOS: 6
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OTHER INFORMATION: synthetic oligonucleotide
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; ORGANISM: Homo sapiens US-10-303-778-10110
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                               US-60-427-836-454485
; Sequence 454485, Application US/60427836
; GENERAL INFORMATION:
; APPLICANT: Xue Mei Zhou
; TITLE OF INVENTION: Methods of Genetic Analysis of Rat
; FILE REFERENCE: 3527
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                                                                                                                                                                                                                                                                                                                                                 ORGANISM: Mus musculus
US-60-427-808-634065
                                                                                                                                               RESULT 12
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CURRENT FILING DATE: 2002-11-20
NUMBER OF SEO ID NOS: 982914
SOFTWARE: Microarray Probe Sequence Listing Generator V 1.1
SEO ID NO 296803
LENGTH: 25
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                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: Methods of Genetic Analysis of Mouse FILE REFERENCE: 3528
CURRENT SEPLICATION NUMBER: US/60/427,808
CURRENT FILING DATE: 2002-11-20
NUMBER OF SEQ ID NOS: 982914
SOFTWARE: Microarray Probe Sequence Listing Generator V 1.1
SEQ ID NO 634065
LENGTH: 25
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Xue Mei Zhou
TITLE OF INVENTION: Methods of Genetic Analysis of Mouse
FILE REFERENCE: 3528
                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Xue Mei Zhou
 CURRENT APPLICATION NUMBER: US/60/427,836
CURRENT FILING DATE: 2002-11-20
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CURRENT FILING DATE:
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                                                                                                                                                                                                                                    1441 GGGCATCCACTGGTACTCGCAGCTG 1465
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Similarity 100.0%; Pred. No.
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100.0%; Pred. No.
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100.0%; Pred. No.
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SOFTWARE: Microarray Probe Sequence Listing Generator V 1.1
SEQ ID NO 454485
RESULT 14
US-10-351-951-54
                                                                 Db
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LENGTH: 50
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                                                                                                                                                            Query Match
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CURRENT FILING DATE: 2001-07-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Rosen, et. al. TITLE OF INVENTION: Human Genes, Sequences, and Expression Products 100
                                                                                                                                                 Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: 08/220,691
PRIOR FILING DATE: 1994-03-31
PRIOR APPLICATION NUMBER: 09/741,830
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PRIOR FILING DATE: 1993-08-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILE REFERENCE: PO-100
                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: 09/813,155
PRIOR FILING DATE: 2001-03-21
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 244538
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                                                                                                                                                                                                                 NAME/KEY: misc_feature LOCATION: (50)..(50) OTHER INFORMATION: n is equal to a,t,g, or c
                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens
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                                                                                              5 GGCAGCCAGCGAGGGAGAGAGCGAGCGAGCGAGCGAGGAAGGG 53
                                                                 FILING DATE: 1999-02-12
APPLICATION NUMBER: 08/
FILING DATE: 1993-08-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 08/221,623 FILING DATE: 1994-03-31
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APPLICATION NUMBER: 08/196,362
FILING DATE: 1994-02-15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 09/859,490
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Pred. No.
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                                                                                                                                                   Score 25; DB 6;
Pred. No. 1e+05;
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GENERAL INFORMATION:
APPLICANT: Stefansson, Stefan E.
TITLE OF INVENTION: GENE LINKED TO OSTEOARTHRITIS

Application US/10351951

Sequence 54,

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; ORGANISM: Mus musculus US-60-427-808-121712
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; ORGANISM: Homo sapiens
US-10-351-951-54
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                                                                                                             TITLE OF INVENTION: Methods of Genetic Analysis of Mouse FILE REFERENCE: 3528
CURRENT APPLICATION NUMBER: US/60/427,808
CURRENT FILING DATE: 2002-11-20
NUMBER OF SEQ ID NOS: 982914
SOFTWARE: Microarray Probe Sequence Listing Generator V 1.1
SEQ ID NO 121712
LENGTH: 25
 Best Local Similarity
                     Query Match
                                                                                                                                                                                                                                                                                 Sequence 121712, Application US/60427808 GENERAL INFORMATION:
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SEQ ID NO 43
LENGTH: 24
TYPE: DNA
ORGANISM: Artificial Sequence
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PRIOR FILING DATE: 1996-07-07
NUMBER OF SEQ ID NOS: 54
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CURRENT FILING DATE: 2000-11-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: SCREENING ASSAYS FOR HEDGEHOG AGONISTS AND ANTAGONISTS FILE REFERENCE: HMSU-P14-006
                                                                                               TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Ingham et al
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CURRENT FILING DATE: 2003-01-24
PRIOR APPLICATION NUMBER: 10/057,312
PRIOR FILING DATE: 2002-01-25
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Local Similarity 68.0%;
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1.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
               Score 23.4;
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Pred. No. 1.8e+05;
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               DB 9;
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             Length 25;
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US-60-427-808-765746
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   APPLICANT: Xue Mei Zhou
TITLE OF INVENTION: Methods of Genetic Analysis of Mouse
FILE REFERENCE: 3528
CURRENT APPLICATION NUMBER: US/60/427,808
CURRENT FILING DATE: 2002-11-20
NUMBER OF SEQ ID NOS: 982914
SOFTWARE: Microarray Probe Sequence Listing Generator V 1
SEQ ID NO 765746
LENGTH: 25
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: Microarray Probe Sequence Listing Generator V 1.1
SEQ ID NO 634064
LENGTH: 25
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CURRENT FILING DATE: 2002-11-20
NUMBER OF SEQ ID NOS: 982914
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TYPE: DNA
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SOFTWARE: Microarray Probe Sequence Listing Generator V 1.1
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TITLE OF INVENTION: Methods of Genetic Analysis of Mouse
FILE REFERENCE: 3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
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TYPE: DNA
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Pred. No. 1.

 Mismatches

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Pred. No. 1.8e+05;
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; ORGANISM: Mus musculus US-60-427-808-765746
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US-60-427-808-807373
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                                                                                                ; Sequence 90500, Appl ; GENERAL INFORMATION:
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LENGTH: 25
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LENGTH: 25
TYPE: DNA
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CURRENT FILING DATE: 2002-11-20
NUMBER OF SEQ ID NOS: 982914
SOFTWARE: Microarray Probe Sequence Listing Generator
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TITLE OF INVENTION: Methods of Genetic Analysis
FILE REFERENCE: 3528
                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                                                                                                                                                                                                                                           Query Match
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CURRENT FILING DATE: 2002-11-20
NUMBER OF SEQ ID NOS: 982914
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TITLE OF INVENTION: methods of Genetic Analysis of Mouse
FILE REFERENCE: 3528
APPLICANT: Xue Mei Zhou
TITLE OF INVENTION: Methods of Genetic Analysis of Rat
FILE REFERENCE: 3527
CURRENT APPLICATION NUMBER: US/60/427,836
CURRENT FILING DATE: 2002-11-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Microarray Probe Sequence Listing Generator V 1.1
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Local Similarity 96.0%;
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Similarity 96.0%;
24; Conservative
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Pred. No. 1.8e+05;
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Pred. No. 1.8e+05;
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; TYPE: DNA
; ORGANISM: Rattus norvegicus
US-60-427-836-90500
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US-60-427-836-238304
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CURRENT FILING DATE: 2002-11-20
NUMBER OF SEQ ID NOS: 699466
SOFTWARE: Microarray Probe Sequence Listing Generator V 1.1
SEQ ID NO 238304
LENGTH: 25
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SOFTWARE: Microarray Probe Sequence Listing Generator V 1.4
SEQ ID NO 90500
LENGTH: 25
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Best Local
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                                                                                                                                                             SEQ ID NO 454484
LENGTH: 25
TYPE: DNA
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                                                               Matches
                                                                                            Query Match
                                                                                                                                                                                                                     CURRENT APPLICATION NUMBER: US/60/427,836
CURRENT FILING DATE: 2002-11-20
NUMBER OF SEQ ID NOS: 699466
                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Methods of Genetic Analysis of Rat FILE REFERENCE: 3527
                                                                                                                                                                                                       SOFTWARE: Microarray Probe Sequence Listing Generator V 1.1
                                                                                                                                                                                                                                                                                                       APPLICANT: Xue Mei Zhou
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                              1441 GGGCATCCACTGGTACTCGCAGCTG 1465
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1 GGGCATCCACTGCTACTCGCAGCTG 25
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Pred. No. 1.8e+05;
                                                                  0;
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Pred. No. 1.8e+05;
                                                                                   Score 23.4; DB 9;
Pred. No. 1.8e+05;
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                                                                    Mismatches
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RESULT 25
US-60-427-836-591791
; Sequence 591791, App
; GENERAL INFORMATION:

Application US/60427836

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Database :
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Maximum Match 100%
Listing first 1000 summaries
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Maximum DB seq length: 50
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Perfect score:
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  March 13, 2003, 20:53:08; Search time 4362 Seconds (without alignments) 10514.906 Million cell updates/sec
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Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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       45;
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47; Conservation
                                                                                                                             BIOGEN, INC.
                                                                                                                                     Hedgehog fusion proteins and uses Patent: WO 0134654-A 70 17-MAY-2001;
                                                                                                                                                                 Strauch, K.
                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                 Homo sapiens
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/db_xref="taxon:9606"
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/db_xref="taxon:9606"
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98.0%;
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           Score 43.8; DB 6;
Pred. No. 3.8e+04;
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Pred. No. 2.5e+04;
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Pred. No. 1.1e+04;
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                                                                                                                                                                                                                  BIOGEN, INC. (US)
                                                                                                                                                                                                                       Hedgehog fusion proteins and uses Patent: WO 0134654-A 74 17-MAY-2001;
                                                                                                                                                                                                                                                     Strauch, K.
                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                  Homo sapiens
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Sequence 71 from Patent W00134654
AX146609
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97.8%;
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Pred. No. 3.8e+04;
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LOCUS DEFINITION

AX146615

Sequence 77 from Patent W00134654

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PAT 31-MAY-2001

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AX146615.1
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1 (bases 1 to 43)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
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AX146611
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          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 47)
 Strauch, K.
                                                      Homo sapiens
                                                                                                  AX146611.1
                                                                                                                                          AX146611
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Pred. No. 6.1e+04;
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AX146610
                                                                                                                                                                                                                                     Sequence 16 from Patent W00075329.
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                                                                 Targeted angiogenesis patent: WO 0075329-A 16 14-DEC-2000; Edwards Lifesciences Corporation (US) (AT)
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                                                                                                                                   Levine, A.J., Mitterer, A., Falkner, F.G., Scheiflinger, F. and
                                                                                                                                                                               synthetic construct
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/db_xref="taxon:9606"
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Pred. No. 9.2e+04;
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PAT 07-JAN-2002

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                                  oligonucleotide
Patent: US 6319672-A 35 20-NOV-2001;
                                                    l (bases 1 to 50)
Crouzet,J., Scherman,D., Wils,P., Blanche,F. and Cameron,
Purification of a triple helix formation with an immobili
                                                                                                               Unknown
                                                                                                                                                               Sequence 35 from patent US AR178318
                                                                                                                            Unknown.
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                                                                                                                                                                                          AR178318
                                                                                                                                                                                                                                                                                                        . Similarity
27; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (04-OCT-1999) Surgery, Cedars Sinal Medical Center, 8700 Beverly Blvd., Los Angeles, CA 90048, US Related entry: NM_000193
                                                                                                   Unclassified.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Palm,K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Palm,K., Salin-Nordstrom,T., Levesque,M.F. and Neuman,T. Fetal and adult human CNS stem cells have similar molecular characteristics and developmental potential Brain Res. Mol. Brain Res. 78 (1-2), 192-195 (2000)
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AJ270316.1 GI:9557893
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(Drosophila) homolog (SHH)"
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/db_xref="taxon:9606"
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Schalling,M., Hudson,T.J. and Housman,D.E.
Direct detection of expanded nucleotide re
Patent: US 5695933-A 7 09-DEC-1997;
                                                                                                                                                                                                                                                                                 Sequence
184406
                                                                                                                                                                                                                               Unknown
                                                                 Similarity
                                                                                                                                                                                                                   Unclassified
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   synthetic construct.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Patent:
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                                                                                                             /organism="unknown"
11 c 22 g
                                                                                                                                                                                                                                                                                          7 from patent US 5695933.
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/db_xref="taxon:32630"
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Pred. No. 5e+06;
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                                                                                                                                                     1 ACCGAGGGCTGGGACGAAGATGGC 24
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Drazen,J.M., In,K.-H., Asano,K., Beier,D. and Grobholz,J.
5-Lipoxygenase gene polymorphisms and their use in classifying
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 6 from patent US 6355434.
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AR063105
AR063105.1 GI:5990796
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Location/Qualifiers
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Ingham, P.W., McMahon, A.P. and Tabin, C.J.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 24)
Ingham, P.W., McMahon, A.P. and Tabin, C.J.
Nucleic acids encoding hedgehog proteins
Patent: US 6271363-A 43 07-AUG-2001;
Location/Qualifiers
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Ingham, P.W., McMahon, A.P. and Tabin, C.J.
Vertebrate embryonic pattern-inducing proteins
Patent: US 6384192-A 43 07-MAY-2002;
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AR208932
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Direct detection of expanded nucleotide repeats in
Patent: US 5695933-A 2 09-DEC-1997;
Location/Qualifiers
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                                                                    Malaria parasitic epitope (T-cell).
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Huang, G.P., Rhode, P.R., Stinson, J.R. and Wong, H.C.
Method involving display of protein binding pairs on the surface of bacterial pili and bacteriophage
Patent: US 5516637-A 13 14-MAY-1996;
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Oerum, H. and Seeger, C.
METHOD FOR GENERATING MULTIPLE DOUBLE STRANDED NUCLEIC ACIDS
Patent: WO 9720068-A 5 05-JUN-1997;
BOEHRINGER MANNHEIM GMBH (DE)
Location/Qualifiers
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Anti-CD4 antibody
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ALIGNMENTS

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ARESULT 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; hedgehog protein; nootropic; neuroprotective; anticonvulsant; cytostatic; therapy; Alzheimer's disease; Parkinson's disease; injury; cytostatic; therapy; Alzheimer's disease; parkinson's chorea; amylotropic lateral sclerosis; multiple sclerosis; nervous system aqinq; neurodegenerative disease; immunological disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         extracellular signalling protein; HOG-403; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nervous system aging; neurodegenerative disease; immunological dismalignant glioma; medulloblastoma; neuroectodermal tumour; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human oligonucleotide HOG-403 used to construct pKS285.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-SEP-2001 (first entry)
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                                                                                                                                      02-NOV-2000; 2000WO-US30405.
                                                                                                                                                                                                                                                                                                                                                                                               WO200134654-A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                          99US-0164025
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The present invention relates to hedgehog fusion proteins. Hedgehog comproteins are a family of extracellular signalling proteins that regulate various aspects of embryonic development both in vertebrates and in convertebrates. Hedgehog fusion protein is useful for the prophylaxis or continuent of any condition or disease states for which a hedgehog or constituents or conditions of disease states in biological system or constituents or conditions of disease states in biological systems. CC specimens and for diagnostic purposes in non-physiological systems. CC Hedgehog fusion protein is useful for treating neurological conditions. CC Hedgehog fusion protein is useful for treating neurological conditions. CC Hedgehog fusion protein is useful for treating neurological conditions. CC parkinson's disease, Huntington's chorea, amylotropic lateral sclerosis CC parkinson's disease, Huntington's chorea, amylotropic lateral sclerosis and chronic immunological diseases of nervous system including multiple cc sclerosis and malignant gliomas, medulloblastomas, neuroectodermal CC tumours which express the receptor for the protein. The present sequence is human oligonucleotide HOG-403 used to construct pKS288, pKS288, pKS310, pKS287 pKS300 and pKS289 plasmids which are used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel isolated hedgehog fusion polypeptide useful for treating neurological conditions such as Alzheimer's disease, Parkinson's disease, Huntington's chorea, amylotropic lateral sclerosis, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (BIOJ ) BIOGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Example 1; Page 60; 178pp; English.
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Query Match Best Local Matches 50; Similarity Conservative 100.0%; 0; Score 50; Pred. No. Mismatches 0; Indels 0

Sequence 50 BP; 11 A; 11 C; 15 G; 13 T; 0 other;

3.2%;

DB 22;

Length .50;

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RESULT 2
AAD09078/c
Human oligonucleotide HOG-803 used to construct pMMC22.
                                                                                                                   AAD09078 standard; DNA; 50 BP
                                          04-SEP-2001
                                          (first entry)
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Human; hedgehog protein; nootropic; neuroprotective; anticonvulsant; cytostatic; therapy; Alzheimer's disease; Parkinson's disease; injury; Huntington's chorea; amylotropic lateral sclerosis; multiple sclerosis; nervous system aging; neurodegenerative disease; immunological disease; malignant glioma; medulloblastoma; neuroectodermal tumour; cancer; extracellular signalling protein; HOG-803; ss. Homo sapiens. 02-NOV-2000; 2000WO-US30405 WO200134654-A1 05-NOV-1999; 17-MAY-2001. 99US-0164025

(BIOJ) BIOGEN INC

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention relates to hedgehog fusion proteins. Hedgehog CC proteins are a family of extracellular signalling proteins that regulate various aspects of embryonic development both in vertebrates and in CC invertebrates. Hedgehog fusion protein is useful for the prophylaxis or patched protein constituent is efficacious and in the diagnosis of CC constituents or conditions of disease state for which a hedgehog or CC specimens and for diagnostic purposes in biological system or CC specimens and for diagnostic purposes in non-physiological system or CC the diagnostic purposes in non-physiological systems. CC due to injury, aging of nervous system, including Alzheimer's disease, CC chronic neurodegenerative diseases of the nervous system, including Parkinson's disease, Huntington's chorea, amylotropic lateral sclerosis and chronic immunological diseases of nervous system including multiple CC and chronic immunological diseases of nervous system including multiple collections and to specifically target medical therapies against cancers and tumours which express the receptor for the protein. The present sequence is human oligonucleotide HOG-803 used to construct pMMC22 plasmid which is wead in the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                  Human; hedgehog protein; nootropic; neuroprotective; anticonvulsant; cytostatic; therapy; Alzheimer's disease; Parkinson's disease; injury; Huntington's chorea; amylotropic lateral sclerosis; multiple sclerosis; neurous system aging; neurodegenerative disease; immunological disease; malignant glioma; medulloblastoma; neuroectodermal tumour; cancer;
                                                                                 05-NOV-1999;
                                               (BIOJ ) BIOGEN INC
                                                                                                                  02-NOV-2000; 2000WO-US30405.
                                                                                                                                                                                          WO200134654-A1.
                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                              Human oligonucleotide HOG-804 used to construct pMMC23.
                                                                                                                                                        17-MAY-2001
                                                                                                                                                                                                                                                        extracellular signalling protein; HOG-804; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                      04-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 50 BP; 6 A; 17 C; 13 G; 14 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAD09079 standard; DNA; 50 BP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             disease, Huntington's chorea, amylotropic lateral sclerosis, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel isolated hedgehog fusion polypeptide useful for treating neurological conditions such as Alzheimer's disease, Parkinson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-329075/34
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
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                                                                                                                                                                                              The present invention relates to hedgehog fusion proteins. Hedgehog CC proteins are a family of extracellular signalling proteins that regulate CC various aspects of embryonic development both in vertebrates and in CC invertebrates. Hedgehog fusion protein is useful for the prophylaxis or CC patched protein constituent is efficacious and in the diagnosis of CC constituents or conditions of disease states in biological system or CC specimens and for diagnostic purposes in non-physiological systems. CC Hedgehog fusion protein is useful for treating neurological systems. CC Hedgehog fusion protein is useful for treating neurological conditions can be considered by the conditions of the nervous system, including CC chronic neurodegenerative diseases of the nervous system, including CC and chronic immunological diseases of the nervous system including multiple CC and chronic immunological diseases of nervous system including multiple CC and chronic immunological diseases of nervous system including multiple CC sclerosis and malignant gliomas, medulloblastomas, neuroectodermal CC tumours and to specifically target medical therapies against cancers and CC is human oligonucleotide HOG-804 used to construct pMMC23 plasmid which cc is used in the invention
                                                    Matches
                                                                                                Query Match
                                                                                                                                     Sequence 50 BP; 6 A; 19 C; 13 G; 12 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel isolated hedgehog fusion polypeptide useful for treating neurological conditions such as Alzheimer's disease, Parkinson's disease, Huntington's chorea, amylotropic lateral sclerosis, and
                                                                                                                                                                                            is used in the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 1; Page 62; 178pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-329075/34.
                                                                         Local Similarity
                                                 49;
                                                 Conservative
                                                                   3.1%;
                                            0;
                                                                   Score 48.4;
Pred. No. 1
                                            Mismatches
                                                                                        DB 22;
                                         <u>ب</u>
                                                                                      Length 50;
                                         Indels
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228 CGGGCAGGGGTTCGGGAAGAGGAGGCACCCCAAAAAAGCTGACCCCTTTA 277 50 CGGGCAGGGGGTTCGGGAGGAGGAGGCACCCCAAAAAGCTGACCCCTTTA 1 Gaps

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RESULT 4 AAD09081/c Human oligonucleotide HOG-807 used to construct pMMC26. 04-SEP-2001 (first entry) AAD09081; AAD09081 standard; DNA; 50 BP

cytostatic; therapy; Alzheimer's disease; Parkinson's disease; injury; Huntington's chorea; amylotropic lateral sclerosis; multiple sclerosis; nervous system aging; neurodegenerative disease; immunological disease; Human; hedgehog protein; nootropic; neuroprotective; anticonvulsant; glioma; medulloblastoma; neuroectodermal tumour;

Homo sapiens. extracellular signalling protein; HOG-807; ss.

WO200134654-A1.

17-MAY-2001

02-NOV-2000; 2000WO-US30405

05-NOV-1999; 99US-0164025

(BIOJ) BIOGEN INC

WPI; 2001-329075/34.

Novel isolated hedgehog fusion polypeptide useful for treating

Example 1; Page 61; 178pp; English.

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Creates are a family of extracellular signalling proteins. Hedgehog compreteins are a family of extracellular signalling proteins that regulate convertebrates and in the convertebrates and in the convertebrates and in the convertebrates. Hedgehog fusion protein is useful for the prophylaxis or convertebrates. Hedgehog fusion protein is useful for the prophylaxis or convertebrates and in the diagnosis of constituents or conditions of disease state for which a hedgehog or constituents or conditions of disease states in biological system or specimens and for diagnostic purposes in non-physiological systems. Created the conjucy, aging of nervous system, including Alzheimer's disease, concilence of injury, aging of nervous system, including Alzheimer's disease, control neurodegenerative diseases of the nervous system including multiple conditions is disease, Huntington's chorea, amylotropic lateral sclerosis and chronic immunological diseases of nervous system including multiple colleges and including and protein system including multiple colleges and malignant gliomas, medulationas, neuroectodermal conditions which express the receptor for the protein. The present sequence is human oligonucleotide HOG-807 used to construct pMMC26 plasmid which
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             disease,
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                                                                                                                                                                                                                                                                                                                                                                                                             Human; hedgehog protein; nootropic; neuroprotective; anticonvulsant; cytostatic; therapy; Alzheimer's disease; Parkinson's disease; injury; Huntington's chorea; amylotropic lateral sclerosis; multiple sclerosis; nervous system aging; neurodegenerative disease; immunological disease; malignant glioma; medulloblastoma; neuroectodermal tumour; cancer; extracellular signalling protein; HOG-789; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 50 BP; 6 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human oligonucleotide HOG-789 used to construct pMMC22.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAD09073 standard; DNA; 47
            Novel isolated hedgehog fusion polypeptide useful for treating neurological conditions such as Alzheimer's disease, Parkinson's disease, Huntington's chorea, amylotropic lateral sclerosis, and
                                                                                                 WPI; 2001-329075/34.
                                                                                                                                                                          (BIOJ ) BIOGEN INC
                                                                                                                                                                                                                    05-NOV-1999;
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                                                                                                                                                                                                                                                                                                                                        WO200134654-A1
                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             228 CGGGCAGGGGGTTCGGGAAGAAGGGAGGCACCCCAAAAAAGCTGACCCCTTTA 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        50 CGGGCAGGGGTTCGGGAAGAGGAGGCACCCCCAGCAGCTGACCCCTTTA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         in the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Huntington's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                    9908-0164025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19 C; 15 G; 10 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ns such as Alzheimer's disease, Parkinson's chorea, amylotropic lateral sclerosis, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 45.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ψ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
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The present invention relates to hedgehog fusion proteins. Hedgehog CC proteins are a family of extracellular signalling proteins that regulate CC various aspects of embryonic development both in vertebrates and in CC invertebrates. Hedgehog fusion protein is useful for the prophylaxis or CC treatment of any condition or disease state for which a hedgehog or CC patched protein constituent is efficacious and in the diagnosis of CC constituents or conditions of disease states in biological systems or CC specimens and for diagnostic purposes in non-physiological systems. CC Hedgehog fusion protein is useful for treating neurological conditions CC the constituent of the conditions of disease, including Alzheimer's disease, CC due to injury, aging of nervous system, including alzheimer's disease, CC constituent diseases of the nervous system including parkinson's disease, Huntington's chorea, amylotropic lateral sclerosis and chronic immunological diseases of nervous system including multiple sclerosis and malignant gliomas, medulloblastomas, neuroectodermal CC sclerosis and malignant gliomas, medulloblastomas, neuroectodermal tumours and to specifically target medical therapies against cancers and the shuman oligonucleotide HOG-789 used to construct pMMC22 plasmid which
Sequence 47 BP; 13 A; 13 C; 18 G; 3 T; 0 other;
                                                                   in the invention.
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RESULT 6
AAD09074
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                Human; hedgehog protein; nootropic; neuroprotective; anticonvulsant; cytostatic; therapy; Alzheimer's disease; Parkinson's disease; injury; Huntington's chorea; amylotropic lateral sclerosis; multiple sclerosis; nervous system aging; neurodegenerative disease; immunological disease; malignant glioma; medulloblastoma; neuroectodermal tumour; cancer;
                            extracellular signalling protein; HOG-791;
                                                                                                                                                                                                                                                                                    AAD09074 standard; DNA; 47
                                                                                                                                                                    Human oligonucleotide HOG-791 used to construct pMMC23.
                                                                                                                                                                                                         04-SEP-2001 (first entry)
                                                                                                                                                                                                                                                  AAD09074;
Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                     225 GACCGGGCAGGGGGTTCGGGAAGAGGGAGGCACCCCAAAAAAGCTGACC 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                  45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2.8%;
95.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 43.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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17-MAY-2001

WO200134654-A1

02-NOV-2000; 2000WO-US30405

99US-0164025

Novel isolated hedgehog fusion polypeptide useful for treating neurological conditions such as Alzheimer's disease, Parkinson disease, Huntington's chorea, amylotropic lateral sclerosis, a

Parkinson

Example 1; Page 61-62; 178pp; English

multiple sclerosis

WPI; 2001-329075/34.

(BIOJ) BIOGEN INC 05-NOV-1999; В

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RESULT 7
AAD09077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99999999999999999988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CC The present invention relates to hedgehog fusion proteins. Hedgehog CC proteins are a family of extracellular signalling proteins that regulate CC various aspects of embryonic development both in vertebrates and in CC invertebrates. Hedgehog fusion protein is useful for the prophylaxis or CC treatment of any condition or disease state for which a hedgehog or CC patched protein constituent is efficacious and in the diagnosis of CC constituents or conditions of disease states in biological system or CC specimens and for diagnostic purposes in non-physiological systems. CC Hedgehog fusion protein is useful for treating neurological conditions CC due to injury, aging of nervous system, including Alzheimer's disease, CC chronic neurodegenerative diseases of the nervous system, including CC and chronic immunological diseases of the nervous system, including multiple CC arkinson's disease, Huntington's chorea, amylotropic lateral sclerosis CC and chronic immunological diseases of nervous system including multiple CC sclerosis and malignant gliomas, medulloblastomas, neuroectodermal CC tumours which express the receptor for the protein. The present sequence CC is human oligonucleotide HOG-791 used to construct pMMC23 plasmid which cross read in the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                       Novel isolated hedgehog fusion polypeptide useful for treating neurological conditions such as Alzheimer's disease, Parkinson's
multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nervous system aging; neurodegenerative disease; immunological disease; malignant glioma; medulloblastoma; neuroectodermal tumour; cancer; extracellular signalling protein; HOG-799; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; hedgehog protein; nootropic; neuroprotective; anticonvulsant; cytostatic; therapy; Alzheimer's disease; Parkinson's disease; injury; Huntington's chorea; anylotropic lateral sclerosis; multiple sclerosis;
                                                                                                                                WPI; 2001-329075/34.
                                                                                                                                                                                                                                     (BIOJ ) BIOGEN INC
                                                                                                                                                                                                                                                                                                                                         02-NOV-2000; 2000WO-US30405.
                                                                                                                                                                                                                                                                                                                                                                                                 17-MAY-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human oligonucleotide HOG-799 used to construct pMMC22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAD09077 standard; DNA; 45 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 47 BP; 11 A; 13 C; 20 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          in the invention.
             Huntington's chorea, amylotropic lateral sclerosis, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                    99US-0164025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 43.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         No. 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
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밁

proteins are a family of extracellular signalling proteins that regvarious aspects of embryonic development both in vertebrates and in The present invention relates to hedgehog fusion proteins. Hedgehog proteins are a family of extracellular signalling proteins that regulate

The invention relates to novel polymer conjugates of hedgehog proteins which have increased bioavailability. The hedgehog proteins are conjugated to a non-naturally-occurring polymer comprising a polyalkylene

Example 6; Page 77; 157pp; English.

62; 178pp; English.

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DT DE CONTRACTOR OF CONTRACTOR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAF27031/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CC invertebrates. Hedgehog fusion protein is useful for the prophylaxis or CC treatment of any condition or disease state for which a hedgehog or CC patched protein constituent is efficacious and in the diagnosis of CC constituents or conditions of disease states in biological systems of CC specimens and for diagnostic purposes in non-physiological systems. Specimens and for diagnostic purposes in non-physiological systems. CC Hedgehog fusion protein is useful for treating neurological conditions due to injury, aging of nervous system, including Alzheimer's disease, chronic neurodegenerative diseases of the nervous system, including Parkinson's disease, Huntington's chorea, amylotropic lateral sclerosis and chronic immunological diseases of nervous system including multiple cand chronic immunological diseases of nervous system including multiple sclerosis and malignant gliomas, medulloblastomas, neuroectodermal tumours which express the receptor for the protein. The present sequence is human oligonucleotide HOG-799 used to construct phMC22, pMMC23, pMMC25 and pMMC26 plasmids which are used in the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local :
                                                                                                                                                                                         polyalkylene glycol group linked to any residue other than N-terminal and lysine residues - \,
                                                                                                                                                                                                                                                     Modified hedgehog protein, useful in the treatment of Parkinson's disease and Huntington's chorea, comprises a polymer containing a
                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-049927/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JUN-1999;
13-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     neurodegenerative disorder; Parkinson's disease; Huntington's disease; Alzheimer's disease; neurological injury; stroke; multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sonic hedgehog; Shh; polymer conjugate; polyalkene glycol group; bioavailibility; formulation; neurological disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (BIOJ ) BIOGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mutagenic primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            malignant glioma; medulloblastoma; neuroectodermal tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human Sonic hedgehog (Shh) mutagenic primer, SEQ ID NO:35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAF27031 standard; DNA; 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-MAY-2000; 2000WO-US14741.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200073337-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        inflammatory disorder; autoimmune disorder; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAF27031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 45 BP; 12 A; 14 C; 10 G; 9 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        272 CCTTTAGCCTACAAGCAGTTTATCCCCAATGTGGCCGAGAAGACC 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 CCTTTAGCCTACAAGCAGTTTATCCCCAAGGTGGCCGAGAAGACC 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                Taylor F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99US-0137011
99US-0149016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2.8%;
97.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                Garber E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
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Pred. No. 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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0;

glycol group, with the proviso that the polymer is not conjugated to the N-terminus, or to lysine residues of the hedgehog protein. The hedgehog protein used in the conjugate may be a wild-type or mutant Sonic hedgehog (Shh), Indian hedgehog (Ihh) or Desert hedgehog (Dhh) protein, or may be a hedgehog fusion protein. The invention also relates to methods of

or may be

WPI; 2001-049927/06.

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cc defining and mapping functionally important regions of a protein by cc modifying accessible amino acid side chains, and determining the effect cc the position and/or type of modification have on the activity of the protein. The hedgehog polymer conjugates may be used in the management of cc inflammatory and autoimmune diseases, and cancers. In particular, they cc may be used to prevent preventing or ameliorate neurological diseases, and cisease, and cisease, Alzheimer's cc disease); age-associated neurological disease, Alzheimer's cc disease); stroke; and malignant disease, meurological injury and ctrauma; immunological diseases of the nervous system (e.g., multiple cc sclerosis); stroke; and malignant gliomas, meduloblastomas and cc may result in increased half-life, altered tissue distribution (such as cc an improved ability to stay in the vasculature for longer periods of cc time), increased stability in solution, protection from proteolytic degradation, or reduced immonogenicity. In particular, the ability to remain in the vasculature for prolonged periods may allow a hedgehog protein of the invention to cross the blood-brain barrier, and an cc increased thermal stability would be an advantage when formulating the human sonic hedgehog mutagenic primer used in an exemplification of the invention of the constants of the co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QΥ
RESULT 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                        sonic hedgehog; Shh; polymer conjugate; polyalkene glycol group; bioavailibility; formulation; neurological disorder; inflammatory disorder; autoimmune disorder; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 48 BP; 10 A; 13 C; 15 G; 10 T; 0 other;
                Pepinsky RB,
                                                              (BIOJ ) BIOGEN INC
                                                                                                        01-JUN-1999;
13-AUG-1999;
                                                                                                                                                                          26-MAY-2000; 2000WO-US14741.
                                                                                                                                                                                                                      07-DEC-2000
                                                                                                                                                                                                                                                                WO200073337-A1
                                                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                malignant glioma;
                                                                                                                                                                                                                                                                                                                                                                                                                     Alzheimer's disease; neurological injury; stroke; multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                          neurodegenerative disorder; Parkinson's disease; Huntington's disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human Sonic hedgehog (Shh) mutagenic primer, SEQ ID NO:38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAF27034;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAF27034 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                                                                                                                                                                                                                 sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                  Taylor F,
                                                                                                           99US-0149016
                                                                                                                                99US-0137011
                                                                                                                                                                                                                                                                                                                                                                                                  medulloblastoma; neuroectodermal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 43.2;
Pred. No. 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. NO. 10.0); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 22; Length 48;
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CC which have increased bioavailability. The hedgehog proteins are conjugated to a non-naturally-occurring polymer comprising a polyalkylene CC conjugated to a non-naturally-occurring polymer is not conjugated to the CC glycol group, with the proviso that the polymer is not conjugated to the CC quyon with the proviso that the polymer is not conjugated to the CC quyon with the proviso that the polymer is not conjugated to the CC quyon with the proviso that the polymer is not conjugated to the CC quyon must be provided to the protein used in the conjugate may be a wild-type or mutant sonic hedgehog (Ihh) protein. The invention also relates to methods of CC a hedgehog functionally important regions of a protein by CC a hedgehog functionally important regions of a protein by CC anish and accessible amino acid side chains, and determining the effect CC various medical conditions including various neurological disorders, CC various medical conditions including various neurological disorders, CC disorders (e.g., Parkinson's diseases, and cancers. In particular, they come be used to prevent preventing or ameliorate neurodegenerative cC disorders (e.g., Parkinson's diseases, Huntington's disease, Alzheimer's CC disease); servesociated neurological disease; neurological injury and CC trauma; immunological diseases of the nervous system (e.g., multiple colleges of the protein (e.g., multiple colleges); increased thalf-life, altered tissue distribution (such as an improved ability to stay in the vasculature for longer periods of cc main in the vasculature for protection from proteolytic degradation, or reduced immunogenicity. In particular, the ability to crease in of the jovention to cross the blood-Prain barrier, and an and an order protein of the protein Modified hedgehog protein, useful in the treatment of Parkinson's disease and Huntington's chorea, comprises a polymer containing a polyalkylene glycol group linked to any residue other than the protein of the invention to cross the blood-brain barrier, and an increased thermal stability would be an advantage when formulating the hedgehog protein in powder form. The present sequence represents a human Sonic hedgehog mutagenic primer used in an exemplification of the Example 6; Page 77; 157pp; English. N-terminal and lysine residues

DЬ AAD09080/c Matches Query Match Best Local 398 GACATCATATTTAAGGATGAAGAAAACACCGGAGCGGACAGGCTGATG 445 Similarity Conservative 2.7%; 93.8%; 0; Mismatches Score 43.2; DB 22; Pred. No. 1e+02; ω •• Length 48; Indels 0; Gaps

0

Qy

Sequence 48 BP; 10 A;

15 C; 7 G; 16 T; 0 other;

cytostatic; therapy; Alzheimer's disease; Parkinson's disease; injury; Huntington's chorea; amylotropic lateral sclerosis; multiple sclerosis; Human; hedgehog protein; nootropic; neuroprotective; anticonvulsant; Human oligonucleotide HOG-806 used to construct pMMC25. 04-SEP-2001 AAD09080 standard; DNA; 50 (first entry)

nervous system aging; neurodegenerative disease; immunological disease; malignant glioma; medulloblastoma; neuroectodermal tumour; cancer; extracellular

PDD XXX AC WO200134654-A1

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RESULT 11
AADD99082/c
ID AAD090
XX AAD090
AC AAD090
XY Unman
XX Human;
KW Human;
KW Cytost
KW Huntin
KW nervou
KW malign
KW malign
XX Homo s
XX WO2001
XX
PD 17-MAY
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                                                                                                   nervous system aging; neurodegenerative disease; immunological disease; malignant glioma; medulloblastoma; neuroectodermal tumour; cancer; extracellular signalling protein; HOG-808; ss.
                                                                                                                                                                                                                        Human; hedgehog protein; nootropic; neuroprotective; anticonvulsant; cytostatic; therapy; Alzheimer's disease; Parkinson's disease; injury; Huntington's chorea; amylotropic lateral sclerosis; multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             patched protein constituent is efficacious and in the diagnosts of constituents or conditions of disease states in biological system or specimens and for diagnostic purposes in non-physiological systems. Hedgehog fusion protein is useful for treating neurological conditions due to injury, aging of nervous system, including Alzheimer's disease, chronic neurodegenerative diseases of the nervous system, including Parkinson's disease, Huntington's chorea, amylotropic lateral sclerosis and chronic immunological diseases of nervous system including multiple sclerosis and malignant gliomas, medulloblastomas, neuroectodermal tumours and to specifically target medical therapies against cancers and tumours which express the receptor for the protein. The present sequence is human oligonucleotide HOG-806 used to construct pMMC25 plasmid which
              02-NOV-2000; 2000WO-US30405
                                                        17-MAY-2001.
                                                                                                  WO200134654-A1
                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                              Human oligonucleotide HOG-808 used to construct pMMC22.
                                                                                                                                                                                                                                                                                                                                                                                                                                     AAD09082 standard; DNA; 43 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 50 BP; 6 A; 16 C; 16 G; 12 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention relates to hedgehog fusion proteins. Hedgehog proteins are a family of extracellular signalling proteins that regulate various aspects of embryonic development both in vertebrates and in invertebrates. Hedgehog fusion protein is useful for the prophylaxis or treatment of any condition or disease state for which a hedgehog or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 1; Page 62; 178pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel isolated hedgehog fusion polypeptide useful for treating neurological conditions such as Alzheimer's disease, Parkinson's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     228 CGGGCAGGGGTTCGGGAAGAGGGAGGCACCCCAAAAAGCTGACCCCTTTA 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BIOJ ) BIOGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-NOV-2000; 2000WO-US30405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                50 CGGGCAGGGGTTCGGGCAGCAGCAGCACCCCAAAAAGCTGACCCCTTTA 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2001-329075/34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Huntington's chorea, amylotropic lateral sclerosis, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2.7%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .6e+02;
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AAD09076
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to hedgehog fusion proteins. Hedgehog CC proteins are a family of extracellular signalling proteins that regulate CC various aspects of embryonic development both in vertebrates and in CC invertebrates. Hedgehog fusion protein is useful for the prophylaxis or CC treatment of any condition or disease states for which a hedgehog or CC patched protein constituent is efficacious and in the diagnosis of CC constituents or conditions of disease states in biological system or CC specimens and for diagnostic purposes in non-physiological systems. CC Hedgehog fusion protein is useful for treating neurological conditions CC due to injury, aging of nervous system, including Alzheimer's disease, CC chronic neurodegenerative diseases of the nervous system, including Parkinson's disease, Huntington's chorea, amylotropic lateral sclerosis CC and chronic immunological diseases of nervous system including multiple CC sclerosis and malignant gliomas, medulloblastomas, neuroectodermal CC tumours and to specifically target medical therapies against cancers and to summar which express the receptor for the protein. The present sequence cis human oligoniclectide HGG-808 used to construct pMMC22, pMMC23, pMMC25 and namera can in the inventor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                Human; hedgehog protein; nootropic; neuroprotective; anticonvulsant; cytostatic; therapy; Alzheimer's disease; Parkinson's disease; injury; Huntington's chorea; amylotropic lateral sclerosis; multiple sclerosis; nervous system aging; neurodegenerative disease; immunological disease; malignant glioma; medulloblastoma; neuroectodermal tumour; cancer; extraceilular signalling protein; HGG-797; ss.
                                     05-NOV-1999;
                                                                        02-NOV-2000; 2000WO-US30405
                                                                                                                      17-MAY-2001
                                                                                                                                                              WO200134654-A1.
                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                   Human oligonucleotide HOG-797 used to construct pMMC26.
                                                                                                                                                                                                                                                                                                                                                                                                                                  04-SEP-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAD09076 standard; DNA; 47 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 43 BP; 8 A; 10 C; 14 G; 11 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and pMMC26 plasmids which are used in the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 1; Page 62; 178pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel isolated hedgehog fusion polypeptide useful for treating neurological conditions such as Alzheimer's disease, Parkinson's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           278 GCCTACAAGCAGTTTATCCCCAATGTGGCCGAGAAGACCCCTAG 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-329075/34.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    43 GCCTACAAGCAGTTTCTCCCCAATGTGGCCGAGAAGACCCCTAG 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Huntington's chorea, amylotropic lateral sclerosis, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                     99US-0164025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0164025.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 41.4;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .1e+02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
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(BIOJ) BIOGEN INC

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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                invertebrates. Hedgehog fusion protein is useful for the prophylaxis or treatment of any condition or disease state for which a hedgehog or patched protein constituent is efficacious and in the diagnosis of constituents or conditions of disease states in biological system or specimens and for diagnostic purposes in non-physiological systems. Hedgehog fusion protein is useful for treating neurological conditions due to injury, aging of nervous system, including Alzheimer's disease, chronic neurodegenerative diseases of the nervous system, including parkinson's disease, Huntington's chorea, amylotropic lateral sclerosis and chronic immunological diseases of nervous system including multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sclerosis and malignant gliomas, medulloblastomas, neuroectodermal tumours and to specifically target medical therapies against cancers and tumours which express the receptor for the protein. The present sequence is human oligonucleotide HOG-797 used to construct pMMC23 plasmid which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention relates to hedgehog fusion proteins. Hedgehog proteins are a family of extracellular signalling proteins that regulate various aspects of embryonic development both in vertebrates and in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 multiple sclerosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel isolated hedgehog fusion polypeptide useful for treating neurological conditions such as Alzheimer's disease, Parkinson's disease, Huntington's chorea, amylotropic lateral sclerosis, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Strauch
                                                                                                                                                                                                                                                                                        Human; hedgehog protein; nootropic; neuroprotective; anticonvulsant; cytostatic; therapy; Alzheimer's disease; parkinson's disease; injury; Huntington's chorea; amylotropic lateral sclerosis; multiple sclerosis; nervous system aging; neurodegenerative disease; immunological disease; malignant glioma; medulloblastoma; neuroectodermal tumour; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 1; Page 62; 178pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-329075/34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 47 BP; 9 A; 15 C; 20 G; 3 T; 0 other;
                                                    (BIOJ ) BIOGEN INC
                                                                                         05-NOV-1999;
                                                                                                                           02-NOV-2000; 2000WO-US30405.
                                                                                                                                                                17-MAY-2001
                                                                                                                                                                                                     WO200134654-A1
                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                       extracellular signalling protein; HOG-795; ss
                                                                                                                                                                                                                                                                                                                                                                                                         Human oligonucleotide HOG-795 used to construct pMMC25 plasmid
                                                                                                                                                                                                                                                                                                                                                                                                                                              04-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAD09075;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAD09075 standard; DNA; 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               225 GACCGGGCAGGGGGTTCGGGAAGAGGGGAGGCACCCCAAAAAGCTGACC 271
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                         99US-0164025
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      91.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 40.6;
Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           47;
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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention relates to hedgehog fusion proteins. Hedgehog proteins are a family of extracellular signalling proteins that regulate various aspects of embryonic development both in vertebrates and in invertebrates. Hedgehog fusion protein is useful for the prophylaxis or treatment of any condition or disease state for which a hedgehog or patched protein constituent is efficacious and in the diagnosis of constituents or conditions of disease states in biological system or specimens and for diagnostic purposes in non-physiological systems. Hedgehog fusion protein is useful for treating neurological conditions due to injury, aging of nervous system, including Alzheimer's disease, chronic neurodegenerative diseases of the nervous system, including multiple parkinson's disease, Huntington's chorea, amylotropic lateral sclerosis and chronic immunological diseases of nervous system including multiple solerosis and maliconent allowse medicallohasetoms neuro-or-ordermal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel isolated hedgehog fusion polypeptide useful for treating neurological conditions such as Alzheimer's disease, Parkinson's disease, Huntington's chorea, amylotropic lateral sclerosis, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sclerosis and malignant gliomas, medulloblastomas, neuroectodermal tumours and to specifically target medical therapies against cancers and tumours which express the receptor for the protein. The present sequence is human oligonucleotide HOG-795 used to construct pMMC25 plasmid which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 1; Page 62; 178pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  multiple sclerosis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-329075/34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 47 BP; 11 A; 16 C; 17 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                           bioavailibility; formulation; neurological disorder; inflammatory disorder; autoimmune disorder; cancer; neurodegenerative disorder; Parkinson's disease; Huntington's disease; Alzheimer's disease; neurological injury; stroke; multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human Sonic hedgehog (Shh) mutagenic primer, SEQ ID NO:36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAF27032 standard; DNA; 42 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   is used in the invention.
                                                        (BIOJ ) BIOGEN INC.
                                                                                                                      01-JUN-1999;
                                                                                                                                                             26-MAY-2000; 2000WO-US14741.
                                                                                                                                                                                                                                        WO200073337-A1
                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                     Homo sapiens.
                                                                                                                                                                                                                                                                                                                                        mutagenic primer;
                                                                                                                                                                                                                                                                                                                                                             malignant glioma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sonic hedgehog; Shh; polymer conjugate; polyalkene glycol group;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           225 GACCGGGCAGGGGTTCGGGAAGAGGGAGGCACCCCAAAAAGCTGACC 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     POCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                     99US-0149016
                                                                                                                      99US-0137011
                                                                                                                                                                                                                                                                                                                                                             medulloblastoma; neuroectodermal tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2.4%;
87.2%;

 Mismatches

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 37.4; DB 22; Pred. No. 9.6e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            47;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
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0

Pepinsky RB,

Taylor F,

Garber

E

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RESULT 15
AAF27036/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                QY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a hedgehog fusion protein. The invention also relates to methods of defining and mapping functionally important regions of a protein by commodifying accessible amino acid side chains, and determining the effect the position and/or type of modification have on the activity of the protein. The hedgehog polymer conjugates may be used in the management of craimantory and autoimmune diseases, and cancers. In particular, they can be used to prevent preventing or ameliorate neurodegenerative conjugates with the management of disease; age-associated neurological disease, Alzheimer's cidisease; age-associated neurological disease; neurological injury and conference and malignant gliomas, medulloblastomas and concertodermal tumours. The modifications made to the hedgehog protein compared ability to stay in the vasculature for longer periods of the invention to cross the blood-brain barrier, and an improved thermal stability would be an advantage when formulating the function.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                 Synthetic
                                                                                                                        inflammatory disorder; autoimmune disorder; cancer; neurodegenerative disorder; Parkinson's disease; Huntington's disease;
                                                                                                                                                                                                                                                                                                                             AAF27036 standard; DNA; 42 BP
                                                Homo sapiens
                                                                                  malignant glioma; medulloblastoma; neuroectodermal tumour;
mutagenic primer; ss.
                                                                                                          Alzheimer's disease; neurological injury; stroke; multiple sclerosis;
                                                                                                                                                                 bioavailibility; formulation; neurological disorder;
                                                                                                                                                                                Sonic hedgehog; Shh; polymer conjugate; polyalkene glycol group;
                                                                                                                                                                                                                    Human Sonic hedgehog (Shh) mutagenic primer, SEQ ID NO:40.
                                                                                                                                                                                                                                                             30-MAR-2001 (first entry)
                                                                                                                                                                                                                                                                                                    AAF27036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 42 BP; 8 A; 13 C; 9 G; 12 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    N-terminus, or to lysine residues of the hedgehog protein. The hedgehog protein used in the conjugate may be a wild-type or mutant Sonic hedgehog (Shh), Indian hedgehog (Ihh) or Desert hedgehog (Dhh) protein, or may be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       which have increased bioavailability. The hedgehog proteins are conjugated to a non-naturally-occurring polymer comprising a polyalkylene glycol group, with the proviso that the polymer is not conjugated to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                     338 GAAGGGAAGATCTCCAGAAACTCCGAGCGATTTAAGGAACTC 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to novel polymer conjugates of hedgehog proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Modified hedgehog protein, useful in the treatment of Parkinson's disease and Huntington's chorea, comprises a polymer containing a polyalkylene glycol group linked to any residue other than the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 6; Page 77; 157pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-terminal and lysine residues -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-049927/06.
                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2.4%;
92.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 37.2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ω
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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CC various medical conditions including various neurological disorders, CC inflammatory and autoimmune diseases, and cancers. In particular, they can be used to prevent preventing or ameliorate neurodegenerative CC disorders (e.g., Parkinson's disease, Huntington's disease, Alzheimer's CC disease); age-associated neurological disease; neurological injury and CC trauma; immunological diseases of the nervous system (e.g., multiple CC sclerosis); stroke; and malignant glomas, medulloblastomas and CC neuroectodermal tumours. The modifications made to the hedgehog protein CC may result in increased half-life, altered tissue distribution (such as CC time), increased stability in solution, protection from proteolytic CC degradation, or reduced immunogenicity. In particular, the ability to CC remain in the vasculature for prolonged periods may allow a hedgehog CC protein of the invention to cross the blood-brain barrier, and an original stability would be an advantage when formulating the hedgehog protein in powder form. The present sequence represents a channel scaling and control of the hedgehog moretain in prodection from the presents of the hedgehog protein in powder form. The present sequence represents a channel scaling and control of the hedgehog moretain in the sequence represents a channel scaling and control of the hedgehog moretain in the sequence represents a channel scaling and control of the hedgehog moretain and control of the hedgehog moretain in powder form. The present sequence represents a channel scaling the control of the more more and an account of the control of the hedgehog moretain and control o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-terminus, or to lysine residues of the hedgehog protein. The hedgehog protein used in the conjugate may be a wild-type or mutant Sonic hedgehog (Shh), Indian hedgehog (Ihh) or Desert hedgehog (Dhh) protein, or may be a hedgehog fusion protein. The invention also relates to methods of defining and mapping functionally important regions of a protein by modifying accessible amino acid side chains, and determining the effect the position and/or type of modification have on the activity of the protein. The hedgehog polymer conjugates may be used in the management of
                                                                          human Sonic hedgehog mutagenic primer used in an exemplification of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to novel polymer conjugates of hedgehog proteins which have increased bioavailability. The hedgehog proteins are conjugated to a non-naturally-occurring polymer comprising a polyalkylene glycol group, with the proviso that the polymer is not conjugated to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Modified hedgehog protein, useful in the treatment of Parkinson's disease and Huntington's chorea, comprises a polymer containing a polyalkylene glycol group linked to any residue other than the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 6; Page 77; 157pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-terminal and lysine residues -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-049927/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pepinsky RB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (BIOJ ) BIOGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                26-MAY-2000; 2000WO-US14741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-DEC-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Taylor F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0149016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9908-0137011
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Sequence 42 BP; 11 A; 14 C; 9. G; 8 T; 0 other;
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Score 37.2;

DB 22;

Length 42;

Query Match

0

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XXXX
                                                                             RESULT 16
AAF27039/c
                                                                                                                       Ъ
                                                                                                                                         Qy.
                                                                                                                                                             Matches
                        30-MAR-2001 (first entry)
                                                                  AAF27039 standard; DNA; 38
                                                                                                                                    474 CTTTGGCCATCTCGGTGATGAACCAGTGGCCAGGAGTGAAAC 515
                                                                                                                 42 CTTTGGCCATCTCGGTGATGTGTCAGTGGCCAGGAGTGAAAC
                                                                                                                                                                      ocal Similarity
                                                                                                                                                            39;
                                                                                                                                                           Conservative
                                                                                                                                                                    2.4%;
                                                                                                                                                                    Pred. No.
                                                                                                                                                          Mismatches
                                                                                                                                                                    1e+03;
                                                                                                                                                        ω
                                                                                                                                                        Indels
                                                                                                                                                        0
                                                                                                                                                       Gaps
                                                                                                                                                      0;
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Human Sonic hedgehog (Shh) mutagenic primer, SEQ ID NO:43.

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Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       neurodegenerative disorder; Parkinson's disease; Huntington's disease; Alzheimer's disease; neurological injury; stroke; multiple sclerosis; malignant glioma; medulloblastoma; neuroectodermal tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sonic hedgehog; Shh; polymer conjugate; polyalkene glycol group; bioavailibility; formulation; neurological disorder; inflammatory disorder; autoimmune disorder; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to novel polymer conjugates of hedgehog proteins which have increased bioavailability. The hedgehog proteins are conjugated to a non-naturally-occurring polymer comprising a polyalkylene glycol group, with the proviso that the polymer is not conjugated to the N-terminus, or to lysine residues of the hedgehog protein. The hedgehog protein used in the conjugate may be a wild-type or mutant sonic hedgehog (Shh), Indian hedgehog (Ihh) or Desert hedgehog (Dhh) protein, or may be a hedgehog fusion protein. The invention also relates to methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200073337-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mutagenic primer; ss
                                                                                                                                                                                                                                                                                                                                                                             defining and mapping functionally important regions of a protein by modifying accessible amino acid side chains, and determining the effect the position and/or type of modification have on the activity of the protein. The hedgehog polymer conjugates may be used in the management of various medical conditions including various neurological disorders, inflammatory and autoimmune diseases, and cancers. In particular, they may be used to prevent preventing or ameliorate neurodegenerative disorders (e.g., Parkinson's disease, Huntington's disease, Alzheimer's disease); age-associated neurological disease, neurological injury and trauma; immunological diseases of the nervous system (e.g., multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUN-1999;
13-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-DEC-2000
                                                                                                                                                                                                                  sclerosis); stroke; and malignant gliomas, medulloblastomas and neuroectodermal tumours. The modifications made to the hedgehog protein may result in increased half-life, altered tissue distribution (such as an improved ability to stay in the vasculature for longer periods of time), increased stability in solution, protection from proteolytic degradation, or reduced immunogenicity. In particular, the ability to remain in the vasculature for prologed periods may allow a hedgehog remain in the vasculature for prologed periods may allow a hedgehog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Modified hedgehog protein, useful in the treatment of Parkinson's disease and Huntington's chorea, comprises a polymer containing a polyalkylene glycol group linked to any residue other than the N-terminal and lysine residues -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-MAY-2000; 2000WO-US14741.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 6; Page 77; 157pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (BIOJ ) BIOGEN INC
                                                              Sequence 38
                                                                                                                              increased thermal stability would be an advantage when formulating the hedgehog protein in powder form. The present sequence represents a human Sonic hedgehog mutagenic primer used in an exemplification of the
                                                                                                                                                                                                      protein of the invention to cross the blood-brain barrier, and an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2001-049927/06
                                                                     BP; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Taylor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99US-0149016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0137011.
                                                                     A; 11 C;
2.3%;
                                                                       9 G;
  Score 36.4;
Pred. No. 1
                                                                     10 T; 0 other;
                               Length
```

ρ В

Local

Similarity

Conservative

0;

Mismatches

.4e+03;

Indels

0;

Gaps

0;

hedgehog protein

38

662 GACTGGGTGTACTACGAGTCCAAGGCACATATCCACTG 699

GACTGGGTGTACTACGAGTGCAAGGCACATATCCACTG

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RESULT 17
             cc conjugated to a non-naturally-occurring polymer comprising a polyalkylene conjugated to a non-naturally-occurring polymer comprising a polyalkylene cc glycol group, with the proviso that the polymer is not conjugated to the cc glycol group, with the proviso that the polymer is not conjugated to the cc glycol group, with the proviso that the polymer is not conjugated to the cc glycol group, with the proviso that the polymer is not conjugated to the cc group of the conjugate may be a wild-type or mutant sonic hedgehog condition, indian hedgehog (lih) or Desert hedgehog (Dhh) protein, or may be conditioning and mapping functionally important regions of a protein by cc defining and mapping functionally important regions of a protein by cc modifying accessible amino acid side chains, and determining the effect the position and/or type of modification have on the activity of the cromparty of the protein. The hedgehog polymer conjugates may be used in the management of cc inflammatory and autoimmune diseases, and cancers. In particular, they are used to prevent preventing or ameliorate neurological disease, Alzheimer's cdisease); age-associated neurological disease; neurological injury and concerns immunological diseases, Huntington's disease, Alzheimer's conjugates may result in increased half-life, altered tissue distribution (such as an improved ability to stay in the vasculature for longer periods of time), increased stability in solution, protection from proteolytic degradation, or reduced immunogenicity. In particular, the ability to capture in the vasculature for protonged periods may allow a hedgehog protein of the invention to cross the blood-brain barrier, and an increased thermal stability would be an advantage when formulating the increased thermal stability would be an advantage when formulating the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 inflammatory disorder; autoimmune disorder; cancer; neurodegenerative disorder; Parkinson's disease; Huntington's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAF27025 standard; DNA; 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sonic hedgehog; Shh; polymer conjugate; polyalkene glycol group; bioavailibility; formulation; neurological disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human Sonic hedgehog (Shh) mutagenic primer, SEQ ID NO:29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAF27025;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             disease and \Hat{Huntington's} chorea, comprises a polymer containing polyalkylene glycol group linked to any residue other than the N-terminal and lysine residues .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mutagenic primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  malignant glioma; medulloblastoma; neuroectodermal tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alzheimer's disease; neurological injury; stroke; multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JUN-1999;
13-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       26-MAY-2000; 2000WO-US14741.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200073337-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to novel polymer conjugates of hedgehog proteins which have increased bioavailability. The hedgehog proteins are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2001-049927/06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (BIOJ ) BIOGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 2; Page 67; 157pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Modified hedgehog protein,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pepinsky RB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Taylor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0137011.
99US-0149016.
in powder
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Garber
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           useful in the treatment of Parkinson's
        form. The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  comprises a polymer containing
        sequence represents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           disease;
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RESULT 18
AAF27038/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ρ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SXCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
conjugated to a non-naturally-occurring polymer comprising a polyalkylene glycol group, with the proviso that the polymer is not conjugated to the N-terminus, or to lysine residues of the hedgehog protein. The hedgehog protein used in the conjugate may be a wild-type or mutant Sonic hedgehog (Shh), Indian hedgehog (Ihh) or Desert hedgehog (Phh) protein, or may be a hedgehog fusion protein. The invention also relates to methods of defining and mapping functionally important regions of a protein by modifying accessible amino acid side chains, and determining the effect the position and/or type of modification have on the activity of the protein. The hedgehog polymer conjugates may be used in the management of inflammatory and autoimmune diseases, and cancers. In particular, they may be used to prevent preventing or ameliorate neurodegenerative disorders (e.g., Parkinson's disease, Huntington's disease, Alzheimer's
                                                                                                                                                                                                                        The invention relates to novel polymer conjugates of hedgehog proteins which have increased bioavailability. The hedgehog proteins are
                                                                                                                                                                                                                                                                                                      Modified hedgehog protein, useful in the treatment of Parkinson' disease and Huntington's chorea, comprises a polymer containing polyalkylene glycol group linked to any residue other than the N-terminal and lysine residues -
                                                                                                                                                                                                                                                                            Example 6; Page 77; 157pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               bioavailibility; formulation; neurological disorder; inflammatory disorder; autoimmune disorder; cancer; neurodegenerative disorder; Parkinson's disease; Huntington's disease; Alzheimer's disease; neurological injury; stroke; multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                          Pepinsky RB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUN-1999;
13-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mutagenic primer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human Sonic hedgehog (Shh) mutagenic primer, SEQ ID NO:42
                                                                                                                                                                                                                                                                                                                                                                                                                                                        (BIOJ ) BIOGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200073337-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            malignant glioma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sonic hedgehog; Shh; polymer conjugate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-MAR-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAF27038;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAF27038 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human Sonic hedgehog mutagenic primer used in an exemplification of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      703 GGTGAAAGCAGAGAACTCGGTGGCGGCCAAATCGGGAGGCTGCT 746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                49
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTTGAAAGCAGAGAACTCGGTGTGCGCAAAATCGGGAGGCTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US14741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP; 8 A;
                                                                                                                                                                                                                                                                                                                                                                                                                        Taylor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99US-0137011
99US-0149016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             medulloblastoma; neuroectodermal tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                        'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18 C; 9 G; 14 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  39
                                                                                                                                                                                                                                                                                                                                                                                                                        Garber
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 36;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1.7e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     polyalkene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 49;
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                                                                                                                                                                                                                                                                                                                                       ລິດ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local :
                                                                                                                                     Modified hedgehog protein, useful in the treatment of Parkinson's disease and Huntington's chorea, comprises a polymer containing a
                                                                                                                                                                                                                                                                                              01-JUN-1999;
13-AUG-1999;
                                                                                                           N-terminal and lysine residues
                                                                                                                           polyalkylene glycol group linked
                                                                                                                                                                                              WPI; 2001-049927/06.
                                                                                                                                                                                                                             Pepinsky RB,
                                                                                                                                                                                                                                                           (BIOJ ) BIOGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   inflammatory disorder; autoimmune disorder; cancer; neurodegenerative disorder; Parkinson's disease; Huntington's disease; Alzheimer's disease; neurological injury; stroke; multiple sclerosis; malignant glioma; medulloblastoma; neuroectodermal tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sonic hedgehog; Shh; polymer conjugate; polyalkene glycol group; bioavailibility; formulation; neurological disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disease); age-associated neurological disease; neurological injury and trauma; immunological diseases of the nervous system (e.g., multiple sclerosis); stroke; and malignant gliomas, medulloblastomas and neuroectodermal tumours. The modifications made to the hedgehog protein an improved ability to stay in the vasculature for longer periods of time), increased stability in solution, protection from proteolytic degradation, or reduced immunogenicity. In particular, the ability to remain in the vasculature for prolonged periods may allow a hedgehog protein of the invention to cross the blood-brain barrier, and an increased thermal stability would be an advantage when formulating the human Sonic hedgehog mutagenic primer used in an exemplification of the numer to come the present sequence represents a
                                                                                                                                                                                                                                                                                                                                           26-MAY-2000; 2000WO-US14741.
                                                                                                                                                                                                                                                                                                                                                                             07-DEC-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mutagenic primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human Sonic hedgehog (Shh) mutagenic primer, SEQ ID NO:39
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                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAF27035;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAF27035 standard; DNA; 42 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 39 BP; 7 A; 12 C; 13 G; 7 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         597 CCACGTCTGACCGCGACCGCAGCAAGTACGGCATGCTGG 635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                             Taylor F,
                                                                                                                                                                                                                                                                                            99US-0149016.
                                                                                                                                                                                                                                                                                                             99US-0137011
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2.3%;
                                                                                                                                                                                                                             Garber E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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                                                                                                                           any residue
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conjugated to a non-naturally-occurring polymer comprising a polyalkylene glycol group, with the proviso that the polymer is not conjugated to the The invention relates to novel polymer conjugates of hedgehog proteins which have increased bioavailability. The hedgehog proteins are

Example 6; Page 77; 157pp;

English.

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DRY YEAR OF THE PRESENT OF THE PRESE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     disorders (e.g., Parkinson's disease, Huntington's disease, Alzheimer's disease); age-associated neurological disease; neurological injury and trauma; immunological diseases of the nervous system (e.g., multiple sclerosis); stroke; and malignant gliomas, medulloblastomas and neuroectodermal tumours. The modifications made to the hedgehog protein may result in increased half-life, altered tissue distribution (such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-terminus, or to lysine residues of the hedgehog protein. The hedgehog protein used in the conjugate may be a wild-type or mutant Sonic hedgehog (shh), Indian hedgehog (lhh) or Desert hedgehog (Dhh) protein, or may be a hedgehog fusion protein. The invention also relates to methods of defining and mapping functionally important regions of a protein by modifying accessible amino acid side hedgehog, and determining the effect the position and/or type of modification have on the activity of the protein. The hedgehog polymer conjugates may be used in the management of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           an improved ability to stay in the vasculature for longer periods of time), increased stability in solution, protection from proteolytic degradation, or reduced immunogenicity. In particular, the ability to remain in the vasculature for prolonged periods may allow a hedgehog protein of the invention to cross the blood-brain barrier, and an increased thermal stability would be an advantage when formulating the hedgehog protein in powder form. The present sequence represents a the hedgehog protein in powder form. The present sequence represents a the hedgehog protein in powder form.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            various medical conditions including various neurological disorders, inflammatory and autoimmune diseases, and cancers. In particular, they may be used to prevent preventing or ameliorate neurodegenerative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 42 BP; 11 A; 11 C; 10 G; 10 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sonic hedgehog; Shh; polymer conjugate; polyalkene glycol group; bioavailibility; formulation; neurological disorder; inflammatory disorder; autoimmune disorder; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAF27037;
   WPI; 2001-049927/06
                                                                      Pepinsky RB,
                                                                                                                                                                                                                          01-JUN-1999;
13-AUG-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          malignant glioma; medulloblastoma; neuroectodermal tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     neurodegenerative disorder; Parkinson's disease; Huntington's disease;
Alzheimer's disease; neurological injury; stroke; multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human Sonic hedgehog (Shh) mutagenic primer, SEQ ID NO:41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAF27037 standard; DNA; 37 BP.
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                                                                                                                                                    (BIOJ ) BIOGEN INC
                                                                                                                                                                                                                                                                                                                                           26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            445 GACTCAGAGGTGTAAGGACAAGTTGAACGCTTTGGCCATCTC 486
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                                                                                                                                                                                                                                                                                                                                           2000WO-US14741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                          Taylor
                                                                                                                                                                                                                          99US-0149016
                                                                                                                                                                                                                                                                     99US-0137011
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
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Pred. No. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

Sequence 37

BP; 6 A; 10 C; 12 G; 9 T; 0 other;

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CC glycol group, with the provisor can be provided to grotein used in the conjugate may be a wild-type or mutant Sonic hedgehog CC (Shh), Indian hedgehog (Ihh) or Desert hedgehog (Dhh) protein, or may be a wild-type or mutant Sonic hedgehog CC defining and mapping functionally important regions of a protein by CC modifying accessible amino acid side chains, and determining the effect CC protein. The hedgehog polymer conjugates may be used in the management of CC various medical conditions including various neurological disorders, in particular, they can be used to prevent preventing or ameliorate neurodegenerative CC disease); age-associated neurological disease; neurological injury and CC disease); at parkinson's disease, Huntington's disease, Alzheimer's CC disease); at manunological diseases of the nervous system (e.g., multiple CC neuroectodermal tumours. The modifications made to the hedgehog protein comay result in increased half-life, altered tissue distribution (such as an improved ability to stay in the vasculature for longer periods of compressed thermal stability would be an advantage when formulating the hedgehog protein in powder form. The present sequence represents a human sonic hedgehog mutagenic primer used in an exemplification of the invention form. The present sequence represents a invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Modified hedgehog protein, useful in the treatment of Parkinson's disease and Huntington's Chorea, comprises a polymer containing a polyalkylene glycol group linked to any residue other than the N-terminal and lysine residues -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to novel polymer conjugates of hedgehog proteins which have increased bioavailability. The hedgehog proteins are conjugated to a non-naturally-occurring polymer comprising a polyalkylene glycol group, with the provise that the polymer comprising the the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 6; Page 77; 157pp; English.
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RESULT 21
AAF27041/c
Вр
                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                       neurodegenerative disorder; Parkinson's disease; Huntington's disease; Alzheimer's disease; neurological injury; stroke; multiple sclerosis;
                                                    Homo
                                                                                                                                  inflammatory disorder; autoimmune disorder; cancer;
                                                                                                                                               bioavailibility; formulation; neurological disorder;
                                                                                                                                                            Sonic hedgehog; Shh; polymer conjugate; polyalkene glycol group;
                                                                                                                                                                                       Human Sonic hedgehog (Shh) mutagenic primer, SEQ ID NO:45
                                                                                                                                                                                                                   30-MAR-2001
                                                                                                                                                                                                                                           AAF27041;
                                                                                                                                                                                                                                                                      AAF27041 standard; DNA; 35 BP
                                                                                                                                                                                                                                                                                                                                                                538 CGAAGATGGCCACCACTCAGAGGAGTCTCTGCACTAC 574
                                                                                                                                                                                                                                                                                                                                        37 CGAAGATGGCCACCACTGCGAGGAGTCTCTGCACTAC
                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                  (first entry)
                                                                                            medulloblastoma; neuroectodermal tumour;
                                                                                                                                                                                                                                                                                                                                                                                                        2.1%; 94.6%;

 Mismatches

                                                                                                                                                                                                                                                                                                                                                                                                           Score 33.8;
Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                         Pred
                                                                                                                                                                                                                                                                                                                                                                                                         .9e+03
                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                      Length 37;
                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                               0;
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WO200073337-A1

07-DEC-2000.

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AAF27040/c
ID AAF270
XX
AC AAF270
XX
DT 30-MAR
XX
DE Human
XX
KW Sonic
                                                                                                                                                                                                                                                                                             DЬ
                                                                                                                                                                                                                                                                                                                                   Ωy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  disorders (e.g., Parkinson's disease, Huntington's disease, Alzheimer's C disease); age-associated neurological disease; neurological injury and c trauma; immunological diseases of the nervous system (e.g., multiple sclerosis); stroke; and malignant gliomas, medulloblastomas and neuroectodermal tumours. The modifications made to the hedgehog protein may result in increased half-life, altered tissue distribution (such as a improved ability to stay in the vasculature for longer periods of time), increased stability in solution, protection from proteolytic degradation, or reduced immunogenicity. In particular, the ability to remain in the vasculature for prolonged periods may allow a hedgehog increased thermal stability would be an advantage when formulating the hedgehog protein in powder form. The present sequence represents a human Sonic hedgehog mutagenic primer used in an exemplification of the
                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Sonic hedgehog; Shh; polymer conjugate; polyalkene glycol group;
                                            Human Sonic hedgehog (Shh) mutagenic primer, SEQ ID NO:44.
                                                                                                  30-MAR-2001
                                                                                                                                                                                AAF27040 standard; DNA; 37 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a hedgehog fusion protein. The invention also relates to methods of defining and mapping functionally important regions of a protein by modifying accessible amino acid side chains, and determining the effect the position and/or type of modification have on the activity of the protein. The hedgehog polymer conjugates may be used in the management of inflammatory and autoimmune diseases, and cancers. In particular, they may be used to prevent preventing or ameliorate neurodegenerative may be used to prevent preventing or ameliorate neurodegenerative.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 35 BP; 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             conjugated to a non-naturally-occurring polymer comprising a polyalkylene glycol group, with the proviso that the polymer is not conjugated to the N-terminus, or to lysine residues of the hedgehog protein. The hedgehog protein used in the conjugate may be a wild-type or mutant Sonic hedgehog protein used in the conjugate may be a wild-type or mutant Sonic hedgehog
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to novel polymer conjugates of hedgehog proteins which have increased bioavailability. The hedgehog proteins are
                                                                                                                                                                                                                                                                                                        639 GCCTGGCGGTGGAGGCCGGCTTCGACTGGGTGTAC 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Example 6; Page 77; 157pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Modified hedgehog protein, useful in the treatment of Parkinson's disease and Huntington's chorea, comprises a polymer containing a polyalkylene glycol group linked to any residue other than the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2001-049927/06
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-terminal and lysine residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (BIOJ ) BIOGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-MAY-2000; 2000WO-US14741.
                                                                                                                                                                                                                                                                                    35 GCCTGGCGGTGGAGGCCTGCTTCGACTGGGTGTAC 1
                                                                                                                                                                                                                                                                                                                                                                                               ocal Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indian hedgehog (Ihh) or Desert hedgehog (Dhh) protein, or may be
                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Taylor F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0137011.
99US-0149016.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; 15 C; 9 G; 3 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                           2.1%; 97.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Garber E;
                                                                                                                                                                                                                                                                                                                                                                                                               Score 33.4;
                                                                                                                                                                                                                                                                                                                                                                                               Pred. No.
                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                             4.6e+03
                                                                                                                                                                                                                                                                                                                                                                                                               DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                  0
```

В Qy

538 CGAAGATGGCCACCACTCAGAGGAGTCTCTGCACTAC 574

37 CGAAGATGGCCACCACTCATGCGAGTCTCTGCACTAC 1

Matches

Local

Similarity

2.0%;

Conservative

0; Pred. Score 32.2; mismatches

7.2e+03 DB 22;

Length 37;

0;

Gaps

0

Sequence 37 BP; 7 A;

8 C; 13 G; 9 T; 0 other;

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defining and mapping functionally important regions of a protein by comodifying accessible amino acid side chains, and determining the effect the position and/or type of modification have on the activity of the comodifying accessible amino acid side chains, and determining the effect the position and/or type of modification have on the activity of the comodification including various neurological disorders (c) various medical conditions including various neurological disorders, inflammatory and autoimmune diseases, and cancers. In particular, they can be used to prevent preventing or ameliorate neurological disorders (c) any be used to prevent preventing or ameliorate neurological injury and disease); age-associated neurological disease; neurological injury and crauma; immunological diseases of the nervous system (e) and untiple consists of the seases of the nervous system (e) and untiple consists of the informal filters and the hedgehog protein as an improved ability to stay in the vasculature for longer periods of time), increased stability in solution, protection from proteolytic degradation, or reduced immunogenicity. In particular, the ability to creased thermal stability would be an advantage when formulating the hedgehog protein in powder form. The present sequence represents a convention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         YX
PI
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      XYX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OS KW KW KW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              which have increased bioavailability. The hedgehog proteins are conjugated to a non-naturally-occurring polymer comprising a polyalkylene glycol group, with the proviso that the polymer is not conjugated to the N-terminus, or to lysine residues of the hedgehog protein. The hedgehog protein used in the conjugate may be a wild-type or mutant Sonic hedgehog (Shh), Indian hedgehog (Ihh) or Desert hedgehog (bh) protein, or may be a hedgehog fusion protein. The invention also relates to methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Modified hedgehog protein, useful in the treatment of Parkinson's disease and Huntington's chorea, comprises a polymer containing a polyalkylene glycol group linked to any residue other than the N-terminal and lysine residues -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention relates to novel polymer conjugates of hedgehog proteins which have increased bioavailability. The hedgehog proteins are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 6; Page 77; 157pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-049927/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-JUN-1999;
13-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-DEC-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        bioavailibility; formulation; neurological disorder; inflammatory disorder; autoimmune disorder; cancer; neurodegenerative disorder; Parkinson's disease; Huntington's disease; neurological injury; stroke; multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pepinsky RB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (BIOJ ) BIOGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200073337-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mutagenic primer; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                malignant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                glioma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000WO-US14741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Taylor F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9908-0149016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0137011.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       medulloblastoma; neuroectodermal tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Garber E;
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ABT03768/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 23
                                                                                                                                                                                  RESULT 24
AAQ33571
 밁
                                                                                                                                                                                                                                                             δÃ
                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                              The present invention relates to a method for determining the presence of neoplastic molecular markers in a host, involving the use of neoplastic molecular marker specific reagents to detect such markers and analysing the array of reagents, allowing the identification of the neoplastic disease present. This can be used to determine the best treatment for cancers, in particular neural cell, lung and prostate tumours. The present sequence is a PCR primer useful for detecting the coding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Determining the presence of neoplastic molecular markers, by identifying the presence of markers in host test sample using array of neoplastic molecular marker specific reagents and analyzing the array
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200240716-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human SHH gene PCR primer SEQ ID NO: 289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABT03768;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABT03768 standard; DNA; 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of the reagents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2002-537346/57.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Palm K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-NOV-2000; 2000US-249508P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13-NOV-2001; 2001WO-US43461.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-MAY-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          transcription factor; PCR; primer; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; cancer; neoplastic disease; tumour specific marker; cytostatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (CEMI-) CEMINES LLC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 1; Page 19; 41pp; English.
WO9213102-A.
                         Bos taurus
                                                   genetic mapping;
                                                                                          Microsatellite
                                                                                                                    02-FEB-1993
                                                                                                                                             AAQ33571;
                                                                                                                                                                       AAQ33571 standard; DNA; 46
                                                                                                                                                                                                                                                                                                                                           Sequence 27 BP; 3 A; 11 C; 9 G; 4 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                     sequences of markers of the invention.
                                                                                                                                                                                                                                                              755 TCGGCCACGGTGCACCTGGAGCAGGGC 781
                                                                                                                                                                                                                                       27 TCGGCCACGGTGCACCTGGAGCAGGGC 1
                                                              selection; primers;
                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                   (first entry)
                                                                                         sequence from clone AGLA259.
                                                  traits; amplification; ss
                                                                                                                                                                                                                                                                                                        100.0%;
                                                                                                                                                                                                                                                                                                                   1.7%;
                                                                 OPTIPRIM; breeding;
                                                                                                                                                                        ВP
                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                       Score 27; ; Pred. No.
                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                   DB 24;
                                                                                                                                                                                                                                                                                                        5.4e+04;
                                                                  cattle; parentage;
                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                   Length 27;
                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                             0
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AAF60024
ID AAF
XX AAF
AC AAF
XX DA
DT 26-
DT 26-
XX DA
XX DA
XX DA
XX Syn
XX WO2
XX WO2
XX WO2
XX U01-
XX Z1-
XX Z1-
XX DA
PR 23-
XX WPI
Her
XX WPI
                                                                                                                                                                                                                                                                                                                                                                                                                                         Вþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δõ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The sequence is that of a bovine microsatellite sequence obtd. by cc screening a library of bovine MboI DNA fragments of between cc 250 and 500 bp with an (AC)15 and a (TC)15 oligonucleotide probe. CC distribution of microsatellites and MboI sites, the frequency of cc (T6)n >9 microsatellites in the bovine genome is estimated at >100, cc (T6)n >9 microsatellites in the bovine genome is estimated at >100, cc (T6)n >9 microsatellites in the bovine genome is estimated at >100, cc (T6)n >9 microsatellites in the bovine such bovine microsatellites cc is summarised in the specification and indexed herein (see below). cc The sequences upstream and downstream of the microsatellite sequence compared to generate the required PCR primers for in vitro amplification of the corresp, microsatellite (using the program compilification of the corresp, microsatellite (using the program compilification). The microsatellites may be used to identify individuals, cf or parentage testing, and in the genetic mapping of economic trait cloci, or genes involved the determinism of economic trait craits esp. in cattle, to allow selective breeding.
                                                                                                                                                                                                                                                                                                                                                                                           RESULT 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Georges M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-AUG-1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Table 7; Page 157; 517pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene mapping, and selective breeding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Polymorphic bovine DNA markers - used in genetic identification,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 1992-284684/34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (GENM-) GENMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-JAN-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-JAN-1992;
                                                                                                                                                                                                                                                                                                                                                                AAF60024 standard; DNA; 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 46 BP; 18 A; 2 C;
                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                          Antibody; sperm;
                                                                                                                                                                                                                                                                         DNA linker.
                                                                                                                                                                                                                                                                                                                                   AAF60024;
 WPI; 2001-182730/18
                              Herr JC,
                                                          (-IAAD)
                                                                                          23-JUL-1999;
                                                                                                                     21-JUL-2000; 2000WO-US19843
                                                                                                                                                     01-FEB-2001
                                                                                                                                                                                 WO200107083-A1
                                                                                                                                                                                                                                                                                                       26-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                            UNIV VIRGINIA PATENT FOUND
                               Norton EJ,
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                                 Diekman AB;
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                                                            The present invention relates to a recombinant antibody capable of specifically binding to sperm agglutination antigen-1 (SAGA-1). The recombinant antibody has two peptide fragments of the S19 antibody and the fragments are joined together by a linker. The recombinant monoclonal antibodies are useful in a passive immunity composition for contraception as they inhibit the ability of sperm to fertilize an egg. The antibodies may be used e.g. as an active ingredient of a spermistatic agent, or as a component of a
                                                                                                                                                                                                                   Sequence 45 BP; 2 A; 10 C; 27 G; 6 T; 0 other;
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                                                                                                                                                                                                                                                              spermicidal contraceptive.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New recombinant antibody derivative of monoclonal antibody S19, useful as a reagent for purifying or detecting human spermatozoa, as an active ingredient of a spermistatic agent, or as a component of a spermicidal contraceptive
                                                                                                                                                         Watch 1.7%; Score 26.4; DB 22; Local Similarity 75.0%; Pred. No. 6.8e+04;
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PRIOR APPLICATION NUMBER: 60/09,800
PRIOR APPLICATION NUMBER: 60/099,800
PRIOR APPLICATION NUMBER: 60/078,935
PRIOR APPLICATION NUMBER: 60/078,935
PRIOR APPLICATION NUMBER: 60/078,935
PRIOR PILING DATE: 1998-03-20
PRIOR PILING DATE: 1998-06-17
PRIOR PILING DATE: 1998-06-17
PRIOR PILING DATE: 1997-12-03
PRIOR APPLICATION NUMBER: 60/067,423
PRIOR APPLICATION NUMBER: PCT/US98/25676
PRIOR APPLICATION NUMBER: PCT/US98/25676
PRIOR FILING DATE: 1998-12-03
                                                                                                                                   SOFTWARE: P
SEQ ID NO 31
LENGTH: 49
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                                 Matches
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                                                                                                               ORGANISM: Artificial Sequence
                                                                                                                           TYPE: DNA
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703 GGTGAAAGCAGAGAACTCGGTGGCGGCCAAATCGGGAAGCCTGCT 746
                                          Match 2.3%;
Local Similarity 88.6%;
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US-08-123-936-481
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US-08-475-228A-482
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US-08-482-080A-482
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; ORGANISM: Homo sapiens US-09-930-181-14
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Patent No. 6455292
GENERAL INFORMATION:
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Patent No. 6319672
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Best Local
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TITLE OF INVENTION: Full-Length Serine Protein Kinase in Brain and Pancreas
FILE REFERENCE: 16U 101 V1
CURRENT APPLICATION NUMBER: US/09/930,181
CURRENT FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 18
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APPLICANT:
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                                                                 Matches
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PRIOR TILING DATE: 1997-06-09
PRIOR APPLICATION NUMBER: PCT/
PRIOR FILING DATE: 1995-11-08
NUMBER OF SEQ ID NOS: 36
                                                                                                                                                                                                                                                                                                                                                                     FILE REFERENCE: 03804.0138-01
CURRENT APPLICATION NUMBER: US/09/580,923
CURRENT FILING DATE: 2000-05-26
                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Blanche, Francis
TITLE OF INVENTION: PURIFICATION OF A TRIPLE HELIX FORMATION WITH
TITLE OF INVENTION: IMMOBILIZED OLIGONUCLEOTIDE
FILE REFERENCE: 03804.0138-01
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                                                                                                                                                  OTHER INFORMATION: Description of Artificial Sequence: OTHER INFORMATION: oligonuclectide
                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                 ORGANISM: Artificial Sequence
                                                                                                                                                                                                                     TYPE: DNA
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                   19 GAGAGAGCGAGCGGGGGAGCCGAGGAAGGGAAAGGGGAAAGAGGGAAGAGAGA 68
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Pred. No. 4.5e+03;
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Patent No. 6090547
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                            CORRESPONDENCE ADDRESS:
ADDRESSEE: CHOATE, HALL
STREET: 53 State Street
                                                                                                                                                                                TITLE OF INVENTION: 5-Lipoxygenase Gene Sequence
TITLE OF INVENTION: Polymorphisms and Their Use in Classifying Patients
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: 1; MOLECULE TYPE:
                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEPHONE: 617-861-6240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTORNEY/AGENT INFORMATION:
NAME: Granahan, Patricia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C STREET: Two Militia Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Hudson, Thomas J.
APPLICANT: Housman, David E.
TITLE OF INVENTION: Direct Determination of Expanded
TITLE OF INVENTION: Nucleotide Repeats in the Human (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
COMPUTER: IBM PC OPERATING SYSTEM:
                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
les 28; Conserv
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REFERENCE/DOCKET NUMBER: MIT-6141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/068,747 FILING DATE: 28-MAY-1993
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION:
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OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                  02109-2891
                                                                                                                Boston
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                                                                                   USA
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                                                                                                                                                                                                                       Grobholz, James
                                                                                                                                                                                                                                                         Asano M.D.,
                                                                                                                                                                                                                                                                         In M.D., Kwang-Ho
                                                                                                                                                                                                                                                                                        Drazen M.D., Jeffrey M.
                                                                                                                                                                                                                                              Beier,
IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 other nucleic acid
/desc = "Synthetic"
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                                                                                                                                           HALL & STEWART
                                                                                                                                                                                                                                                           Koichiro
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Pred. No.
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. 6.6e+03;
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TELEFAX: (617) 248 400 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Drazen M.D., Jeffrey M.
APPLICANT: In M.D., Kwang-Ho
APPLICANT: Asano M.D., Kolchiro
                NAME: Jarrell Ph.D., Brenda H.
REGISTRATION NUMBER: 39,223
REFERENCE/DOCKET NUMBER: 09926
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 248-5000
TELEPAX: (617) 248 4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                    ATTORNEY/AGENT INFORMATION:
                                                                                                                                                    PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: 5-Lipoxygenase Gene Sequence TITLE OF INVENTION: Polymorphisms and Their Use in Classifying Patients
                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES:
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NAME: Jarrell Ph.D., Brenda H.
REGISTRATION NUMBER: 39, 223
REFERENCE/DOCKET NUMBER: 00926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IMMEDIATE SOURCE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                        FILING DATE:
                                                                                                                                                                                        CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       y Match 1.6%;
Local Similarity 76.9%;
                                                                                                         NAME:
                                                                                                                                                                                                          FILING DATE:
                                                                                                                                                                                                                     APPLICATION NUMBER: US/09/617,871
                                                                                                                                                                                                                                                                                                                                                                                 STATE:
                                                                                                                                                                                                                                                                                                                                                                                             CITY: Boston
                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: CHOATE, HALL STREET: 53 State Street
                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLONE: No. 6090547\text{mal} tandem SPI binding motif with 6 base CLONE: pair deletion
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              50 base pairs
                                                                                                                                                                                                                                                                                                                                                               USA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Beier, David
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  James
                                                                                                                                                  08/846,020
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                                                                    0092662-0012
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                                                                                                                                                                                                                                                       Version #1.30
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US-08-748-591-11
                                                                                                                                                                                               ; TOPOLOGY: 11; MOLECULE TYPE: US-08-748-591-11
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US-08-356-060A-43
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                                                                                                                                    Matches
                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                   TELEFAX: (415) 854-0875 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: Sherwood, Pamela J
REGISTRATION NUMBER: 36,677
REFERENCE/DOCKET NUMBER: 06510/067001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 322-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS: both
TOPOLOGY: not relevant
MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 50 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/748,591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Epstein, Ervin
APPLICANT: Hu, Zhilan
APPLICANT: Bonifas, Jeanette
TITLE OF INVENTION: Mutant Human Hedgehog Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 24 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLONE: No. 6355434 mal tandem SPl binding motif with 6 base CLONE: pair deletion
                                                                                                   524 ACCGAGGGCTGGGACGAAGATGGC 547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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CITY: Menlo Park
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                                                                                                                                                                                                                                                LENGTH: 24 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE:
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                                                                  1 ACCGAGGGCTGGGACGAAGATGGC 24
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                                                                                                                                    24; Conservative
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                                                                                                                                                   1.5%; Score 24; DB 1; I
100.0%; Pred. No. 9.9e+03;
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Pred. No. 8.3e+03;
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                                                                                                                                                                                                                                                                                        Sequence 43, Application US/08460900C Patent No. 6165747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: 36,709
REFERENCE/DOCKET NUMBER: HMI-006CP
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 43:
SEQUENCE CHARACTERT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
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                                                                                                                                                                                                                                                                          GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: Vertebrate Embryonic Pattern-Inducing TITLE OF INVENTION: Proteins and Uses Related Thereto NUMBER OF SEQUENCES: 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: McMahon, Andrew P. APPLICANT: Tabin, Clifford J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE: 30-DEC-1993
ATTORNEY/AGENT INFORMATION:
NAME: VINCENT, MATTHEW P.
REGISTRATION NUMBER: 36,7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: ASCII(text)
CURRENT APPLICATION DATA:
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                                                                                                                                   APPLICANT: Ingham, Phillip W.
APPLICANT: McMahon, Andrew P.
APPLICANT: Tabin, Clifford J.
APPLICANT: Bumcrot, David A.
APPLICANT: Marti-Gorostiza, Elisa
APPLICANT: Marti-Gorostiza, Elisa
TITLE OF INVENTION: Vertebrate Embryonic Pattern-Inducing
TITLE OF INVENTION: Proteins and Uses Related Thereto
                                                                                              NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                               524 ACCGAGGGCTGGGACGAAGATGGC 547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: UZIP: 02109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US 08/176,427 FILING DATE: 30-DEC-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/356,060A FILING DATE: 14-DEC-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH:
COUNTRY:
                STATE:
                                    CITY: Boston
                                                     ADDRESSEE: FOLEY, HOAG & ELIOT STREET: One Post Office Square
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Match 1.5%; Score 24; DB 2; Local Similarity 100.0%; Pred. No. 9.9e+03 es 24; Conservative 0; Mismatches 0
                                                                                                                                                                                                                                                                          INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  USA
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USA
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SYSTEM: PC-DOS/MS-DOS
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                                                                             HOAG & ELIOT LLP
                                                                                                                      62
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ZIP: 02109

COMPUTER READABLE FORM:

MEDIUM TYPE:

Floppy disk

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 43, Application US/08674509B Patent No. 6261786
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
                                                                                                                                                                                                                                                                                                                                 APPLICANT: Ingham, Phillip W. APPLICANT: McMahon, Andrew P. APPLICANT: Tabin, Clifford J. APPLICANT: Marigo, Valeria TITLE OF INVENTION: SCREENING A NUMBER OF SEQUENCES: 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO:
                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION NUMBER: US/08/674,509B
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/460,900
FILING DATE: 05-JUN-1995
                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
ADDRESSEE: FOLEY, HOAG & ELIOT LLP
STREET: One Post Office Square
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 24 base pairs
TYPE: nucleic acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        524 ACCGAGGGCTGGGACGAAGATGGC 547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILING DATE: 30-DEC-1993
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: US 08/356,060
FILING DATE: 14-DEC-1994
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                                                           CLASSIFICATION:
                                                                          FILING DATE:
                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                       STATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 08/435,093 FILING DATE: 4-MAY-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: FILING DATE: 5-JUNE
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                                                                                                                                                                                                                  02109-2170
                                                                                                                                                                                                                                                                  Boston
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SYSTEM: PC-DOS/MS-DOS
                                                                      02-JUL-1996
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30-DEC-1993
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5-JUNE-1995
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48
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100.0%; Pred. No.
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9.9e+03;
thes 0; Indels
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RESULT 11
US-08-954-698-43
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             TELEFAX: 617-832-7000 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO:
                                                    TELECOMMUNICATION INFORMATION: TELEPHONE: 617-832-1000
                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 30-DEC-1993
                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 08/435,093
FILING DATE: 04-MAY-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/08/954,698
FILING DATE: 20-0CT-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/462,386
FILING DATE: 05-JUN-1995
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Ingham, Phillip W.
APPLICANT: McMahon, Andrew P.
APPLICANT: Tabin, Clifford J.
TITLE OF INVENTION: Vertebrate Embryonic Pattern-Inducing
TITLE OF INVENTION: Proteins and Uses Related Thereto
SEQUENCE CHARACTERISTICS:
                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
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DESCRIPTION:
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REFERENCE/DOCKET NUMBER: HM
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-832-1000
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NAME: Vincent, Matthew P.
                                                                                                    NAME: Vincent, Matthew P. REGISTRATION NUMBER: 36,7
                                                                                                                                                                                                                  APPLICATION NUMBER: US 08/356,060 FILING DATE: 14-DEC-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC
OPERATING SYSTEM:
                                                                                        REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
ZIP: 02109-2170
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              43,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
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/desc = "primer"
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                                                                                                                                                                               US 08/176,427
                                                                                   36,709
ER: HMV-006.10
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                                                                                         US-08-957-874-43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 43, Application US/08957874 Patent No. 6384192 GENERAL INFORMATION:
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                                           Query Match
      Matches
                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US 08/462,386
FILING DATE: 5-JUNE-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/435,093
FILING DATE: 4-MAY-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/356,060
FILING DATE: 14-DEC-1994
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION UMBER: US 08/176,427
FILING DATE: 30-DEC-1993
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                      TELEPHONE: (617) 832-1000
TELEFAX: (617) 832-7000
INFORMATION FOR SEO ID NO: 43:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Ingham, Further P.
APPLICANT: McMahon, Andrew P.
APPLICANT: McMahon, Clifford J.
APPLICANT: Tabin, Clifford J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Vertebrate Employment of Invention: Proteins and Uses Related Thereto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: 1: MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: FOLEY, HOAG & ELIOT LLP
STREET: One Post Office Square
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: ASCII(text)
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                REGISTRATION NUMBER: 36,709
REFERENCE/DOCKET NUMBER: HM
TELECOMMUNICATION INFORMATION:
                                                                                                             MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 524 ACCGAGGGCTGGGACGAAGATGGC 547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/957,874 FILING DATE: 20-OCT-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: UZIP: 02109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM:
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                                                                                                                              TOPOLOGY: lir
                                                                                                                                                                   TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDIUM TYPE:
                                                                                                                                                                                         LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Boston
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                                                                                                                                                                                                                                                                                                                                                           Vincent, Matthew P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MA
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    Conservative
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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100.08; +1
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100.0%; Pred. No.
  1.5%; Score 24; DB 4; Length 24; 100.0%; Pred. No. 9.9e+03; lve 0; Mismatches 0; Indels
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US-08-258-026A-13
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                                                                                                                                                                                   Sequence 129, Application US/09813781 Patent No. 6405989
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TELEPHONE: (617) 523-3400
TELEPAX: (617) 523-6400
TELEX: 200291 STRE UR
INFORMATION FOR SEQ ID NO: 13:
APPLICANT: WEIDANZ, JON A.
APPLICANT: CARD, KIMBERLYN F.
APPLICANT: WONG, HING C.
APPLICANT: WONG, HING C.
TITLE OF INVENTION: FUSION PROTEINS COMPRISING BACTERIOPHAGE COAT PROTEIN
TITLE OF INVENTION: AND A SINGLE-CHAIN T-CELL RECEPTOR
FILE REPERENCE: 46745(1758)
CURRENT APPLICATION NUMBER: US/09/813,781
CURRENT FILING DATE: 2001-03-22
NUMBER OF SEQ ID NOS: 130
                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
LENGTH: 45 base pairs
TYPE: nucleic acid
STRANDEDNESS: unknown
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TITLE OF INVENTION: A METHOD FOR DISPLAYING PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: FILING DATE: 10-JUN CLASSIFICATION: 435
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REGISTRATION NUMBER: 34235
REFERENCE/DOCKET NUMBER: 4
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75.0%;
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Pred. No. 1.1e+04;
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                                                                  Matches
                                                                                             Query Match
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                                                                                                                                                                                                  TELEFAX: (617) 523-6400
TELEX: 200291 STRE UR
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
                 LENGTH: 45
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0.
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                           REFERENCE/DOCKET NUMBER: 42838
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 523-3400
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
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                                                                                                                                         STRANDEDNESS:
TOPOLOGY: un)
                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US 08/258,026 FILING DATE: 10-JUN-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                                                                                                                  NAME: Resnick, David R
REGISTRATION NUMBER: 34
                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: FILING DATE:
2 GTGGCGGTGGCAGCGGCGGTGGTTCCGGAGGCGGCGG 41
                                                                             Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
                                                                                                                                                                                   LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY:
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Local Similarity 75.0%;
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                                                                                                                                                                  nucleic acid
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                                                                                                                                                                                45 base pairs
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E: ROBERTS & CUSHMAN
130 WATER STREET
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                                                               Conservative
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                                                                                                                                         unknown
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VENTION: A METHOD FOR DISPLAYING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Stinson,
                                                                                                                                                     unknown
                                                                           1.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                            PCT/US95/07541
                                                                                                                                                                                                                                                                                                       34235
                                                                           Score 24; DB 5;
Pred. No. 1.1e+04;
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Pred. No. 1.1e+04;
                                                           Mismatches
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                                                           10;
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US-09-499-884-12
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FILE REFERENCE: 50229-180
CURRENT APPLICATION NUMBER: US/09/499,884
CURRENT FILING DATE: 2000-02-08
NUMBER OF SEQ ID NOS: 12
SOFTWARE: PatentIn version 3.0
SEQ ID NO 12
LENGTH: 38
TYPE: DNA
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APPLICANT: St. Clair, Daret
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                                                                                                                                                                     APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                          Matches
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                                                                                                                                  APPLICANT: Urano, muneyasu
APPLICANT: Kasarskis, Edward
TITLE OF INVENTION: DIAGNOSTIC TEST AN
TITLE OF INVENTION: ASSOCIATED DISEASES
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Patent No. 5695933
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS
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APPLICATION UMBER: US/08/068,747 FILING DATE: 28-MAY-1993 CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Schalling, Martin
APPLICANT: Hudson, Thomas J.
APPLICANT: Housman, David E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                    30 CGGCGGCGGCGGCGGCGGCGGCGGCGG 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Granahan, Patricia
REGISTRATION NUMBER: 32,
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                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
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                                                                                                                                           DIAGNOSTIC TEST AND THERAPY FOR MANGANESE SUPEROXIDE DISMU
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                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 23.6;
                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                   1.2e+04;
                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 1; Length 30;
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                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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; NAME/KEY: modified base; LOCATION: (1)..(9)
OTHER INFORMATION: n = a, c, g or t
NAME/KEY: modified base;
LOCATION: (40)..(48)
OTHER INFORMATION: n = a, c, g or t
US-09-497-933A-19
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                 δõ
                                                                                                                             US-09-930-181-13
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                                                                                                                                                                                                                                                            Patent MV. TITORMATION:
GENERAL INFORMATION:
APPLICANT: OriGene Technologies
APPLICANT: OriGene Technologies
TITLE OF INVENTION: Full-Length Serine Protein Kinase in Brain and Pancreas
TITLE OF INVENTION: Full-Length Serine Protein Kinase in Brain and Pancreas
TITLE OF INVENTION: Full-Length Serine Protein Kinase in Brain and Pancreas
TITLE OF INVENTION: Full-Length Serine Protein Kinase in Brain and Pancreas
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LENGTH: 48
                                                                                                                                                                                                                                                                                                                                                            Sequence 13, Application US/09930181 Patent No. 6455292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Wagner, Robert Jr. E.
TITLE OF INVENTION: METHODS FOR DETECTION OF A TRIPLET REPEAT BLOCK AND A
TITLE OF INVENTION: FUNCTIONAL MISMATCH BINDING PROTEIN IN A BIOLOGICAL
TITLE OF INVENTION: FLUID SAMPLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
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                                                                                                                                                                                                     SEQ ID NO 13
                                                       Matches
                                                                                         Query Match
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CURRENT APPLICATION NUMBER: US/09/497,933A
CURRENT FILING DATE: 2000-02-04
                                                                                                                                                                                                                                FILE REFERENCE: 16U 101 V1
CURRENT APPLICATION NUMBER: US/09/930,181
CURRENT FILING DATE: 2001-08-16
NUMBER OF SEQ ID NOS: 18
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                                                                                                                                                                                                                   SOFTWARE: PatentIn version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA
                                                                                                                                       TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OTHER INFORMATION: Description of Artificial Sequence: Probe
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Local Similarity 76.3%;
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                                                                      Local Similarity
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32;
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Pred. No. 1.3e+04;
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Pred. No. 1.
                                                                        Score 23.6; DB 4; Length 50; Pred. No. 1.3e+04;
                                                          Mismatches
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RESULT 20
US-08-748-591-12/c
                           FILE REFERENCE: sequence listing CURRENT APPLICATION NUMBER: US/09/083,123 CURRENT FILING DATE: 1998-05-22 EARLIER APPLICATION NUMBER: EP 95118600.6 EARLIER FILING DATE: 1995-11-25 EARLIER APPLICATION NUMBER: PCT/EP96/05149 EARLIER FILING DATE: 196-11-22 NUMBER OF SEQ ID NOS: 8
                                                                                                                                                                                                                                                                                                                US-09-083-123-5/c
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                                                                                                                                                                                                                                                         ; GENERAL INFORMATION:
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SEQUENCE CHARACTERISTICS:
LENGTH: 25 base ~ Type.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local
SEQ ID NO 5
                                                                                                                                                                                APPLICANT: Orum, Hendrik
APPLICANT: Seeger, Corina
TITLE OF INVENTION: Method for Generating Multiple Double Stranded Nucleic
TITLE OF INVENTION: Acids
               SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE/DOCKET NUMBER: 06
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 322-5070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Hu, Zhilan
APPLICANT: Bonifas, Jeanette
TITLE OF INVENTION: Mutant Human Hedgehog Gene
NUMBER OF SEQUENCES: 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION: NAME: Sherwood, Pamela J
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                       616 CAGCAAGTACGGCATGCTGGCCCGC 640
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REGISTRATION NUMBER: 36,677
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: US/08/748,591
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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US-08-340-045-7
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                                                                                                                   RESULT 23
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                                              Sequence 7, Application US/08340045
Patent No. 5637495
GENERAL INFORMATION:
APPLICANT: AVIV, HAIM
                                                                                                                                                                                                                                                                                                                         SOFTWARE: P
SEQ ID NO 30
LENGTH: 47
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                                                                                                                                                                                                            Matches
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PRIOR FILING DATE: 1997-12-03
PRIOR APPLICATION NUMBER: PCT,
PRIOR FILING DATE: 1998-12-03
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PRIOR APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Artificial Sequence
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                                                                                                                                                                                                                                                                                     FEATURE:
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  APPLICANT:
                         APPLICANT:
                                       APPLICANT:
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              APPLICANT:
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                                                                                                                                                                                                                    Local Similarity
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6444793
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PORTER,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GARGER,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GALDES,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WILLIAMS, KEVIN P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAYLOR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PEPINSKY, R. BLAKE
OPPENHEIM, AMOS VOGEL, TIKVA
                         GORECKI, MARIAN
LEVANON, AVIGDOR
                                                                                                                                                                                                        Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FREDERICK R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HYDROPHOBICALLY-MODIFIED PROTEIN COMPOSITIONS AND
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                                                                                                                                                                                                                  1.4%; Score 22;
100.0%; Pred. No.
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Pred. No. 2.1e+04;
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                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                  Length 47;
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US-08-871-302A-7
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TELEPHONE: 212-391-0525
TELEPAX: 212-391-0525
; INFORMATION FOR SEQ ID NO: 7
SEQUENCE CHARACTERISTICS:
TENGTH: 35 base pairs
                                                                                                                                                                                                                                                                                                                            Sequence 7, Applic Patent No. 6054291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: WHITE, JOHN P.
REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 2006:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 212-278-0400
                                                                                                             APPLICANT: ZEELON, ELISHA
APPLICANT: ZEEVI, MENACHEM
TITLE OF INVENTION: PLASMIDS FOR PRODUCTION OF HUMAN GROWTH
TITLE OF INVENTION: HORMONE OR POLYPEPTIDE ANALOG THEREOF, HOSTS CONTAINING
TITLE OF INVENTION: THE PLASMIDS, PRODUCTS MANUFACTURED THEREBY, AND RELATED
NITHDER OF INVENTION: METHODS
                                                                                CORRESPONDENCE ADDRESS:
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TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
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                                                                                                  NUMBER OF SEQUENCES:
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                789 AGCTGGTGAAGGACCTGAGCCCCGGGGACCGCG 821
                           ADDRESSEE: COOPER & DUNHAM LLP STREET: 1185 AVENUE OF THE AMERICAS CITY: NEW YORK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
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                  STATE:
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                             3 AGCTGGTGCAGGTGCTGAGCCCGGAGCACAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: nucleic acid
STRANDEDNESS: unkn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/0 FILING DATE: 14-NOV-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
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1185 AVENUE OF THE AMERICAS
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ZEEVI, MENACHEM
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SYSTEM: PC-DOS/MS-DOS
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HORMONE OR POLYPEPTIDE ANALOG THEREOF, HOSTS CONTAINING
THE PLASMIDS, PRODUCTS MANUFACTURED THEREBY, AND RELATED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US/08/340,045
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Pred. No. 2.8e+04;
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CURRENT APPLICATION NUMBER: US/09/485,737B
CURRENT FILING DATE: 2000-02-14
PRIOR APPLICATION NUMBER: PCT/EP 98/05165
PRIOR FILING DATE: 1998-08-14
PRIOR FILING DATE: 1998-06-18
PRIOR FILING DATE: 1998-06-18
PRIOR FILING DATE: 1998-06-18
PRIOR FILING DATE: 1997-08-18
NUMBER: DEPO 97870122.5
PRIOR FILING DATE: 1997-08-18
NUMBER: PATENTAL SECURITY OF SEQ ID NOS: 104
SOFTWARE: PATENTIN VETSION 3.0
SEQ ID NO 5
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US-09-485-737B-5
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QY
                                                                                                                       ; OTHER INFORMATION: GENOMIC US-09-485-737B-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 5, Application US/09485737B Patent No. 6350860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
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                                      Query Match
Best Local Similarity 75.0
Matches 27; Conservative
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INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Buyse, Marie-Ange
APPLICANT: Sablon, Erwin
TITLE OF INVENTION: INTERFERON-gamma-BINDING MOLECULES FOR TREATING SEPTIC SHOCK,
TITLE OF INVENTION: CACLEXIA, IMMUNE DISEASES AND SKIN DISORDERS
FILE REFERENCE: INNS:015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Re-Lease #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                              TYPE: DNA
ORGANISM: UNKNOWN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 10036
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: WHITE, JOHN P.
REGISTRATION NUMBER: 28,678
REFERENCE/DOCKET NUMBER: 201
                                                                                                                                                                 FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION: 212-278-0400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA: APPLICATION NUMBER:
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ANTI-SENSE:
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MOLECULE TYPE: DN
                                                                                                                                                                                                                         LENGTH: 40
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 35 base pairs
TYPE: nucleic acid
STRANDEDNESS: unknown
TOPOLOGY: linear
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  757 GGCCACGGTGCACCTGGAGCAGGGCGGCACCAAGCT 792
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                                                             1.48;
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                                          Score 21.6; DB 4; Length 40; Pred. No. 3.1e+04; 0; Mismatches 9; Indels
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                                                 Gaps
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Db 5 GGCCCAGGTGCAGCTGGTGCAGAGCGGTAGCGAACT 40

Search completed: March 13, 2003, 23:59:15 Job time: 96 secs

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Result
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Maximum
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Maximum Match
Listing first
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Perfect score:
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seq length:
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Match
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1576
1 gcgaggcagccag
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                       /cgn2_6/ptodata/2/pubpna/US07_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/PCT_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US06_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US06_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US08_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
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/cgn2_6/ptodata/2/pubpna/US10_NEW_PUB.seq:*
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US-09-883-034-7

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US-10-135-984-6

US-10-135-984-7

US-10-135-984-7

US-10-135-984-7

US-10-135-984-7

US-09-888-326-172

US-09-888-326-172

US-10-027-961A-14

0 US-10-72-152-32

US-10-992-598-122

US-09-992-598-122

US-09-992-598-122

US-09-990-444-122

US-09-990-444-122

US-09-990-436-122

US-09-990-436-122

US-09-990-436-122
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          Sequence 16, Appl
Sequence 37, Appli
Sequence 7, Appli
Sequence 151, App
Sequence 6, Appli
Sequence 4, Appli
Sequence 7, Appli
Sequence 7, Appli
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Sequence 172, Appli
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Sequence 122, Appli
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              | US-09-993-687-122
| US-09-997-734-122
| US-09-997-734-122
| US-09-997-653-122
| US-09-990-438-122
| US-09-990-438-122
| US-09-990-438-122
| US-09-999-990-437-122
| US-09-999-732-122
| US-09-999-732-122
| US-09-999-732-123
| US-09-999-732-123
| US-09-999-732-123
| US-09-997-653-123
| US-09-997-656-123
| US-09-997-656-133
| US-09-997-656-133
| US-09-997-656-133
| US-09-997-656-133
| US-09-997-656-133
| US-09-997-656-133
| US-09-997-7613-313
| US-09-997-761
Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 122, App Sequence 123, App Sequence 15, App 11 Sequence 16, App 11 Sequence 17, App 12 Sequence 17, App 13 Sequence 17, App 13 Sequence 17, App 14 Sequence 17, App 15 ```

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                    | 176 17.                                                                                                                   | 174 17.                                                             | c 1/1 1/.<br>c 1/2 17.                                                                                            | 169 17<br>170 17                                                                                                                   | 167 17.<br>168 17.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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        | 222 17 1.1 39 10 US-09-874-547-26<br>223 17 1.1 39 10 US-09-874-547-29<br>223 17 1.1 39 10 US-09-874-547-29                                                                 | 219 17 1.1 39 9 US-10-067-892-49<br>220 17 1.1 39 9 US-09-539-382-49<br>221 17 1 39 9 US-09-539-382-49 | 1 c 217 1.1 37 10 US-09-887-854-8<br>218 17 1.1 39 US-10-067-90-49                      | c 215 17 1.1 37 9 US-10-1096-7/23-8 c 216 17 1.1 37 10 US-10-1096-7/23-8 c 216 17 1.1 37 10 US-10-1097-085-9                                                                                | c 214 17 1.1 36 9 US-10-074-302-8                                                              | c 211 17 1.1 35 10 US-09-776-491-65 c 212 17 1.1 35 10 US-09-783-580-12                         | 209 17 1.1 35 9 US-09-991-470-7 11 35 10 US-09-9776-490-65                                                                                                                                                                                   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1.1 32 10 US-09-828-447-31                       | 201 17.2 1.1 50 10 US-09-874-547-5<br>202 17.2 1.1 50 10 US-09-874-547-5<br>203 17.1 25 12 US-10-101-040-5                                | 199 17.2 1.1 49 10 US-09-740-002-8 199 17.2 1.1 50 9 US-09-765-555-25                          | c 196 17.2 1.1 42 9 US-09-252-150-41 c 197 17.2 1.1 42 10 US-09-845-160-13 c 197 17.2 1 48 10 US-08-971-798-25 | C 194 17.2 1.1 30 9 US-09-953-052-21 17.2 1.1 31 9 US-09-912-263-286 195 17.2 1.1 31 9 US-09-912-263-286 | C 191 1/.4 1.1 24 9 US-09-837-621-31 C 192 17.2 1.1 24 9 US-09-837-621-31 C 193 17.2 1.1 24 10 US-09-788-038-31                                    | 189 17.4 1.1 50 9 US-10-0/3-300-15<br>190 17.4 1.1 50 9 US-10-073-300-15                        | 187 17.4 1.1 50 8 US-08-9/8-532-29 c 188 17.4 1.1 50 8 US-08-978-632-29                                                                                                                                                                               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182 17.4 1.1 50 8 US-08-978-633-29 Sequence 29, c 182 17.4 1.1 50 8 US-08-978-633-29 Sequence 29, c 182 17.4 1.1 50 8 US-08-978-633-29 Sequence 29, c 182 17.4 1.1 50 8 US-08-978-633-29 Sequence 29, c 182 17.4 1.1 50 8 US-08-978-633-29 Sequence 29, c 182 17.4 1.1 50 8 US-08-978-633-29 Sequence 29, c 182 17.4 1.1 50 8 US-08-978-633-29 Sequence 29, c 182 17.4 1.1 50 8 US-08-978-633-29 Sequence 29, c 182 17.4 1.1 50 8 US-08-978-633-29 Sequence 29, c 182 17.4 1.1 50 8 US-08-978-633-29 Sequence 29, c 182 17.4 1.1 50 8 US-08-978-633-29 Sequence 29, c 182 17.4 1.1 50 8 US-08-978-633-29 Sequence 29, c 182 17.4 17.4 17.4 17.4 17.4 17.4 17.4 17.4 | C 179 17.4 1.1 43 9 05-10-00/132-7 Sequence 7. C 180 17.4 1.1 49 10 US-09-785-632A-8 Sequence 28. | 178 17.4 1.1 35 10 US-09-732-348-8 Sequence 8, 178 17.4 1.1 35 10 US-09-732-348-8 Sequence 7 4 | 17.4 1.1 31 10 US-09-801-274-1211 Sequence 1.1 1 35 0 US-09-801-274-1211 Sequence 1.2 1.1 35 0 US-09-801-270 Sequence 7.0 | 174 1.1 31 10 US-09-801-274-676 Sequence 67                         | C 1/1 1/.4 1.1 31 10 US-09-801-274-213 Sequence 21 C 172 17 4 1.1 31 10 US-09-801-274-219 Sequence 21 Sequence 21 | 169 17.6 1.1 50 10 US-10-948-029-17 Sequence 17.6 1.1 50 12 US-10-038-271-17 Sequence 2                                            | 167 17.6 1.1 50 9 US-10-036-949-39 Sequence 39, 168 17.6 1.1 50 10 US-09-740-002-7 Sequence 7,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| c 306<br>c 306<br>c 307<br>c 308<br>c 308<br>c 310<br>c 310                                                                                                                 |                                                             | c 299                                                     | 296<br>297                          | 295                                  | c 293                                 |                                      | c 289                                  |                                    | 286                                   | 284                                     | 282                                    | c 280                                                    | c 278                              | c 276<br>c 277                        | 274<br>c 275                           | c 272<br>273                          | 270<br>271                             | 269                                      | 26 <b>7</b>                        | c 265                      | c 264                                   | c 262                                  | 260<br>261                 | c 259                                   | c 257                                  | c 255                      | c 254                                   | C 252                                   | c 251             | c 249             | 247                        | c 246             | c 244<br>c 245                     | C 243                                       | 241              | c 239            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------|--------------------------------------|---------------------------------------|--------------------------------------|----------------------------------------|------------------------------------|---------------------------------------|-----------------------------------------|----------------------------------------|----------------------------------------------------------|------------------------------------|---------------------------------------|----------------------------------------|---------------------------------------|----------------------------------------|------------------------------------------|------------------------------------|----------------------------|-----------------------------------------|----------------------------------------|----------------------------|-----------------------------------------|----------------------------------------|----------------------------|-----------------------------------------|-----------------------------------------|-------------------|-------------------|----------------------------|-------------------|------------------------------------|---------------------------------------------|------------------|------------------|
| 16.6<br>16.6<br>16.4<br>16.4                                                                                                                                                | 01 01 01 01                                                 | 01 01 0                                                   | חסס                                 | 000                                  | 000                                   | 000                                  | 200                                    | $\omega$                           | 00                                    | 900                                     | 900                                    | 2000                                                     | 16.6                               | 16.6<br>16.6                          | 16.6<br>16.6                           | 16.6<br>16.6                          | 16.6<br>16.6                           | 16.6                                     | 16.8                               | 16.8<br>16.8               | 16.8                                    | 16.8                                   | 16.8<br>16.8               | 16.8                                    | 16.8                                   | 16.8<br>16.8               | 16.8                                    | 16.8                                    | 16.8              | 16.8              | 16.8                       | 16.8              | 16.8<br>16.8                       | 16.8                                        | 16.8             | 17<br>17         |
| 1                                                                                                                                                                           |                                                             | 11.                                                       |                                     | 1.1                                  | 1.1                                   | 1.1                                  | 111                                    | 1.1                                | 1.1                                   |                                         | 4 p. 4                                 | -                                                        | 1.1                                | 1.1                                   | 1.1<br>1.1                             | 1.1<br>1.1                            | 1.1                                    | ·                                        | 1.1                                | <br>                       | 1.1                                     | 1.1                                    | 1.1                        | 1.1                                     | , L                                    | 1.<br>1.<br>1.             | 1.1                                     | - <u>-</u> -                            | <br>              | ים ב<br>ים ב      | 1<br>1                     | 1.1               | 1.1                                | 1.1                                         | · ·              | 1.1              |
| 50<br>50<br>18<br>21<br>27                                                                                                                                                  | 50<br>50                                                    | 50                                                        | 50                                  | 48                                   | 46                                    | 45                                   | 44.4                                   | 4 2                                | 39                                    | 388                                     | 37                                     | ν ου α<br>ν ου α                                         | 36                                 | 36<br>36                              | သ ယ                                    | 33<br>33                              | 25<br>31                               | 25                                       | 50                                 | 50                         | 50                                      | 4.8                                    | 4.5                        | 43                                      | . 4                                    | 4 4<br>3 3                 | 43                                      | 41                                      | 41                | 41                | 410                        | 40                | ມຜ                                 | 31                                          | 300              | 7.4.<br>7.0      |
|                                                                                                                                                                             | 999                                                         | 999                                                       | 9 -                                 | $\mu$                                | 91                                    | o c                                  | 0 0                                    | 0.0                                | vo vo                                 |                                         |                                        |                                                          |                                    |                                       |                                        |                                       |                                        |                                          |                                    |                            |                                         |                                        |                            |                                         |                                        |                            |                                         |                                         |                   |                   |                            |                   |                                    |                                             |                  |                  |
| 0 US-09-912-439-15<br>0 US-09-918-029-18<br>0 US-09-900-062-44<br>2 US-10-038-271-18<br>0 US-09-797-862-23<br>0 US-09-798-058-13<br>0 US-09-735-363A-6<br>0 US-09-867-475-4 | US-10-011-931-12<br>US-10-036-949-40<br>US-10-136-185-32    | US-09-900-425A-32<br>US-10-125-751-18<br>US-09-912-552-18 | US-09-973-322-20<br>US-09-990-046-6 | US-09-939-484-24<br>US-09-939-483-24 | US-09-795-006A-29<br>US-09-995-847-22 | US-10-085-853-28<br>US-09-735-056-22 | US-10-063-390-2<br>US-09-790-417-235   | US-10-188-947-7                    | US-10-046-922-74<br>US-09-777-597A-12 | US-09-864-785-917<br>US-09-864-785-1037 | US-09-736-969A-68                      | US-10-0/2-438-28<br>US-10-137-765-18<br>US-10-146-333-10 | US-10-072-438-14                   | US-10-158-895-46<br>US-10-057-558-35  | US-10-041-574-13<br>US-09-757-824-1    | US-09-896-650A-18<br>US-09-756-854-13 | US-09-866-108-3142<br>US-09-911-935A-A | US-09-866-108-3140<br>US-09-866-108-3141 | US-09-990-080-17                   | US-09-895-814-969          | US-09-179-536B-119<br>US-10-012-896-969 | US-09-880-732-55                       | US-10-124-880-56           | US-09-978-189-450<br>US-09-978-608A-450 | US-09-999-832A-450                     | US-09-978-697-450          | US-09-978-295A-450<br>US-09-916-510A-12 | US-09-908-660-5                         | US-09-966-930-20  | US-09-966-277-20  | US-09-943-722-126          | US-09-747-419-26  | US-08-786-531B-8                   | ) US-09-801-274-531<br>) US-09-801-274-1526 | US-10-057-467-13 | US-09-785-632A-9 |
| Sequence 15, Appl<br>Sequence 18, Appl<br>Sequence 44, Appl<br>Sequence 18, Appl<br>Sequence 23, Appl<br>Sequence 13, Appl<br>Sequence 6, Appli<br>Sequence 4, Appli        | Sequence 12, Appl<br>Sequence 40, Appl<br>Sequence 32, Appl | س ب                                                       | ດີ່                                 | Sequence 24, Appl                    |                                       | Sequence 28, Appl                    | Sequence 2, Appli<br>Sequence 235, App | Sequence 7, Appli                  | Sequence 74, Appl                     | Sequence 917, App<br>Sequence 1037, Ap  | Sequence 18, Appl<br>Sequence 68, Appl | Sequence 28, Appl<br>Sequence 18, Appl                   | Sequence 14, Appl                  | Sequence 1, Appl<br>Sequence 46, Appl | Sequence 13, Appl<br>Sequence 13, Appl | Sequence 18, Appl                     | Sequence 3142, Ap                      | Sequence 3140, Ap                        | Sequence 29, Appl                  | Sequence 969, App          | Sequence 119, App                       | Sequence 3343, Ap<br>Sequence 55, Appl | Sequence 56, Appl          | Sequence 450, App                       | Sequence 450, App<br>Sequence 450, App | Sequence 450, App          | Sequence 450, App                       | sequence 20, Appli<br>Sequence 5, Appli | Sequence 19, Appl | Sequence 19, Appl | Sequence 126, App          | Sequence 25, Appl | quen                               | Sequence 5                                  |                  | 9                |
|                                                                                                                                                                             |                                                             |                                                           |                                     |                                      |                                       |                                      |                                        |                                    |                                       |                                         |                                        |                                                          |                                    |                                       |                                        |                                       |                                        |                                          |                                    |                            |                                         |                                        |                            |                                         |                                        |                            |                                         |                                         |                   |                   |                            |                   |                                    |                                             |                  |                  |
| c 377 1<br>378 1<br>379 1<br>380 1<br>c 381 1<br>382 1<br>383 1.3                                                                                                           |                                                             |                                                           |                                     |                                      | 3 0 0<br>0 0 0<br>4 0 0               | 363                                  |                                        | 360<br>360                         | 3 W C                                 |                                         |                                        | 352<br>353                                               |                                    |                                       |                                        |                                       |                                        | 341                                      |                                    |                            |                                         |                                        |                            |                                         |                                        |                            |                                         |                                         |                   |                   |                            | 318               |                                    |                                             |                  |                  |
| 377<br>378<br>379<br>379<br>380<br>381<br>382<br>383                                                                                                                        |                                                             | 371<br>372                                                |                                     | 367                                  | 3 0 0<br>0 0 0<br>4 0 0               | 363                                  | 361<br>362                             | 360<br>360                         | 3 W C                                 | 355<br>56                               | 355<br>554                             | 352<br>353                                               | 350<br>351                         |                                       |                                        |                                       | 343                                    | 341                                      | 3 3 3<br>4 0                       |                            | 3 3 6 0                                 |                                        |                            |                                         |                                        |                            |                                         |                                         |                   |                   |                            | 318               | 316<br>317                         |                                             |                  |                  |
| 377<br>378<br>379<br>379<br>380<br>381<br>382<br>383                                                                                                                        | 16.2 1.<br>16.2 1.<br>16.2 1.                               | 371 16.2 1.<br>372 16.2 1.                                | 16.2                                | 367 16.2 1.                          | 365 16.2 1.<br>365 16.2 1.            | 363 16.2 1.                          | 361 16.2<br>362 16.2                   | 359 16.2 1.<br>360 16.2 1.         | 358 16.2 1.                           | 356 16.2 1.                             | 354 16.2 1.<br>355 16.2 1.             | 352 16.4 1<br>353 16.4 1                                 | 350 16.4 1.<br>351 16.4 1.         | 16.4 1.<br>16.4 1.                    | 16.4 1.<br>16.4 1.                     | 16.4                                  | 342 16.4 1<br>343 16.4 1               | 341 16.4 1                               | 339 16.4 1<br>340 16.4 1           | 16.4 I                     | 336 16.4 1                              | 16.4 1                                 | 16.4<br>16.4<br>1          | 16.4 1                                  | 16.4 1                                 | 16.4 1<br>16.4 1           | 16.4 1                                  | 16.4 1                                  | 16.4 1            | 16.4 1            | 16.4 I                     | 318 16.4 1        | 316 16.4 1<br>317 16.4 1           | 16.4                                        | 16.4             | 16.4 1           |
| 377 16.2 1.0<br>379 16.2 1.0<br>379 16.2 1.0<br>380 16.2 1.0<br>381 16.2 1.0<br>381 16.2 1.0<br>383 16.2 1.0<br>384 16.2 1.0                                                | 16.2 1.0<br>16.2 1.0<br>16.2 1.0<br>16.2 1.0                | 371 16.2 1.0<br>372 16.2 1.0                              | 16.2 1.0                            | 367 16.2 1.0                         | 364 16.2 1.0<br>365 16.2 1.0          | 363 16.2 1.0                         | 361 16.2 1.0<br>362 16.2 1.0           | 360 16.2 1.0<br>360 16.2 1.0       | 358 16.2 1.0                          | 356 16.2 1.0<br>357 16.3 1.0            | 354 16.2 1.0<br>355 16.2 1.0           | 352 16.4 1.0<br>353 16.4 1.0                             | 350 16.4 1.0<br>351 16.4 1.0       | 16.4 1.0<br>16.4 1.0                  | 16.4 1.0<br>16.4 1.0                   | 16.4 1.0<br>16.4 1.0                  | 342 16.4 1.0<br>343 16.4 1.0           | 341 16.4 1.0                             | 339 16.4 1.0<br>340 16.4 1.0       | 16.4 1.0                   | 336 16.4 1.0                            | 16.4 1.0                               | 16.4 1.0<br>16.4 1.0       | 16.4 1.0                                | 16.4 1.0                               | 16.4 1.0<br>16.4 1.0       | 16.4 1.0                                | 16.4 1.0                                | 16.4 1.0          | 16.4 1.0          | 16.4 1.0                   | 318 16.4 1.0      | 316 16.4 1.0<br>317 16.4 1.0       | 16.4 1.0                                    | 16.4 1.0         | 16.4 1.0         |
| 377 16.2 1.0 31 3<br>379 16.2 1.0 31 1<br>379 16.2 1.0 31 1<br>380 16.2 1.0 31 1<br>381 16.2 1.0 31 1<br>381 16.2 1.0 31 1<br>383 16.2 1.0 31 1<br>384 16.2 1.0 31 1        | 16.2 1.0 31 9<br>16.2 1.0 31 9<br>16.2 1.0 31 9             | 371 16.2 1.0 30 3<br>372 16.2 1.0 30 1                    | 16.2 1.0 29                         | 367 16.2 1.0 27                      | 365 16.2 1.0 24 365 16.2 1.0 25       | 363 16.2 1.0 24                      | 361 16.2 1.0 24<br>362 16.2 1.0 24     | 359 16.2 1.0 24<br>360 16.2 1.0 24 | 358 16.2 1.0 22                       | 356 16.2 1.0 22<br>357 16.3 1.0 22      | 354 16.2 1.0 21<br>355 16.2 1.0 21     | 352 16.4 1.0 49<br>353 16.4 1.0 50                       | 350 16.4 1.0 48<br>351 16.4 1.0 48 | 16.4 $1.0$ $47$ $16.4$ $1.0$ $47$     | 16.4 1.0 45<br>16.4 1.0 45             | 16.4 1.0 45<br>16.4 1.0 45            | 342 16.4 1.0 45<br>343 16.4 1.0 45     | 341 16.4 1.0 42                          | 339 16.4 1.0 42<br>340 16.4 1.0 42 | 16.4 1.0 40<br>16.4 1.0 42 | 336 16.4 1.0 40                         | 16.4 1.0 39                            | 16.4 1.0 36<br>16.4 1.0 36 | 16.4 1.0 36                             | 16.4 1.0 36                            | 16.4 1.0 35<br>16.4 1.0 36 | 16.4 1.0 33                             | 16.4 1.0 33                             | 16.4 1.0 33       | 16.4 1.0 33       | 16.4 1.0 32<br>16.4 1.0 33 | 318 16.4 1.0 31   | 316 16.4 1.0 31<br>317 16.4 1.0 31 | 16.4 1.0 31                                 | 16.4 1.0 30      | 16.4 1.0 28      |
| 377 16.2 1.0<br>379 16.2 1.0<br>379 16.2 1.0<br>380 16.2 1.0<br>381 16.2 1.0<br>381 16.2 1.0<br>383 16.2 1.0<br>384 16.2 1.0                                                | 16.2 1.0 31 9<br>16.2 1.0 31 9<br>16.2 1.0 31 9             | 371 16.2 1.0 30 3<br>372 16.2 1.0 30 1                    | 16.2 1.0 29                         | 367 16.2 1.0 27                      | 365 16.2 1.0 24 365 16.2 1.0 25       | 363 16.2 1.0 24                      | 361 16.2 1.0 24<br>362 16.2 1.0 24     | 359 16.2 1.0 24<br>360 16.2 1.0 24 | 358 16.2 1.0 22                       | 356 16.2 1.0 22<br>357 16.3 1.0 22      | 354 16.2 1.0 21<br>355 16.2 1.0 21     | 352 16.4 1.0 49<br>353 16.4 1.0 50                       | 350 16.4 1.0 48<br>351 16.4 1.0 48 | 16.4 $1.0$ $47$ $16.4$ $1.0$ $47$     | 16.4 1.0 45<br>16.4 1.0 45             | 16.4 1.0 45<br>16.4 1.0 45            | 342 16.4 1.0 45<br>343 16.4 1.0 45     | 341 16.4 1.0 42                          | 339 16.4 1.0 42<br>340 16.4 1.0 42 | 16.4 1.0 40<br>16.4 1.0 42 | 336 16.4 1.0 40                         | 16.4 1.0 39                            | 16.4 1.0 36<br>16.4 1.0 36 | 16.4 1.0 36                             | 16.4 1.0 36                            | 16.4 1.0 35<br>16.4 1.0 36 | 16.4 1.0 33                             | 16.4 1.0 33                             | 16.4 1.0 33       | 16.4 1.0 33       | 16.4 1.0 32<br>16.4 1.0 33 | 318 16.4 1.0 31   | 316 16.4 1.0 31<br>317 16.4 1.0 31 | 16.4 1.0 31                                 | 16.4 1.0 30      | 16.4 1.0 28      |

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| Sequence 4466, Ap<br>Sequence 4885, Ap<br>Sequence 26, Appl<br>Sequence 26, Appl<br>Sequence 21, Appl<br>Sequence 21, Appl<br>Sequence 21, Appl<br>Sequence 787, Appl                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Sequence 43, App<br>Sequence 170, App<br>Sequence 442, App<br>Sequence 443, App<br>Sequence 4465, /                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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          | C 476 16 1.0 41 C 477 16 1.0 41                                                             | 473 16 1.0 39 .<br>474 16 1.0 39 .                                                                                           | 471 16 1.0 39 9<br>472 16 1.0 39                                                                                                                                                                                                                             | 469 16 1.0 38 9<br>470 16 1.0 38                                         | 467 16 1.0 38 9<br>468 16 1.0 38 9                                     | 465 16 1.0 37 9<br>466 16 1.0 37 1                                   | 463 16 1.0 33 1<br>464 16 1.0 35 9                                                          | 461 16 1.0 33 9<br>462 16 1.0 33 1                                                       | 16 1.0 32 1<br>16 1.0 33 9                                                             |
| 522 16 1.0 50<br>523 16 1.0 50<br>524 16 1.0 50<br>525 16 1.0 20<br>526 15.8 1.0 20<br>527 15.8 1.0 21<br>528 15.8 1.0 21<br>529 15.8 1.0 21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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16 1.0 45 9 US-09-906-646-37 Sequence 37, C 502 16 1.0 45 9 US-09-906-646-37 Sequence 37, C 502 16 1.0 45 9 US-09-906-646-37 Sequence 37, | c 497 16 1.0 45 9 US-U9-901-942-3/ Sequence 37, c 498 16 1.0 45 9 US-U9-904-820-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 37, c 499 16 1.0 45 9 US-U9-904-859-37 Sequence 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33 10 US-09-922-378-13 Sequence | 16 1.0 32 10 US-09-923-246-62 Sequence 62, 16 1.0 33 9 US-09-416-579A-4 Sequence 4, 16 |

| C 6000 13.8 1.0 45 9 US-10-210-69-742-94 600 13.8 1.0 45 9 US-09-90-7613-94 601 13.8 1.0 45 9 US-09-90-7613-94 610 13.8 1.0 45 9 US-09-90-7613-94 611 13.8 1.0 45 9 US-09-90-761-94 612 13.8 1.0 45 9 US-09-90-761-94 613 15.8 1.0 45 9 US-09-90-761-94 614 15.8 1.0 45 9 US-09-90-761-94 615 15.8 1.0 45 9 US-09-90-761-94 616 15.8 1.0 45 9 US-09-90-761-94 617 15.8 1.0 45 9 US-09-90-761-94 618 15.8 1.0 45 9 US-09-90-761-94 619 15.8 1.0 45 9 US-09-90-7761-94 619 15.8 1.0 45 9 US-09-90-7761-94 619 15.8 1.0 45 9 US-09-90-7761-94 610 15.8 1.0 45 10 US-09-7761-94 611 15.8 1.0 45 10 US-09-7761-94 612 15.8 1.0 45 10 US-09-7761-998-14 613 15.8 1.0 45 10 US-09-7761-998-14 614 15.8 1.0 45 10 US-09-7761-998-14 615 15.8 1.0 46 10 US-09-7761-998-14 617 15.8 1.0 46 10 US-09-7761-998-14 618 15.8 1.0 46 10 US-09-7761-998-14 619 15.8 1.0 47 10 US-09-7761-998-14 619 15.8 1.0 10 US-09-7761-998-15 619 15.8 1.0 10 US-09-7761-998-14 610 15.8 1.0 10 US-09-7761-998-14 611 15.8 1.0 10 US-09-7761-998-14 612 15.8 1.0 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55<br>55                                                                               | c 55                                                                                     | c 54                                                                              | c 54                                                                                          | c 54                                                                                     | 544                                                                                     | C 54                                        | C 53                                        | c 53                                                                                    | c 53                                                                                | c 53                                           |
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                                                                                                                   | 15.8<br>15.8<br>1                                                                          | 15.8<br>15.8                                                                               | 15.8                                                                                     | 15.8                                                                                     | 15.8                                                                              | 618 15.8 1<br>619 15.8 1                                                                      | 15.8 1<br>15.8 1                                                                         | 15.8                                                                                    | 15.8                                        | 15.8                                        | 15.8                                                                                    | 15.8                                                                                | 606 15.8                                       |
| US-10-211-059-33 US-09-906-712-94 US-09-907-613-94 US-09-907-613-94 US-09-904-859-94 US-09-904-859-94 US-09-904-859-94 US-09-904-786-94 US-09-904-786-94 US-09-903-786-94 US-09-90-379-64 US-09-903-786-94 US-09-903-786-916-12 US-09-786-898-14 US-09-786-898-14 US-09-786-898-14 US-09-786-898-14 US-09-786-898-15 US-09-786-916-12 US-09-786-916-12 US-09-786-916-14 US-09-786-916-15 US-09-786-916-15 US-09-786-916-15 US-09-786-916-15 US-09-786-916-15 US-09-786-916-16-25 US-09-886-108-446 US-09-886-108-446 US-09-881-711A-31 US-09-881-711-9 US-09-881-71-9 US-09-881-71-9 US-09-881-71-9 US-09-881-71-9 US-09-881-71-9 US-09-881-7 US-09-881-7 US-09-881-7 US-09-881-7 US-09-881-7 US-09-881-7 US-09-881-7 US-09-88 | 670 15.6 1.0<br>671 15.6 1.0<br>672 15.6 1.0<br>673 15.6 1.0<br>674 15.6 1.0<br>675 15.6 1.0                                                                                                                                                                                                          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                                                                               | 658 15.6 1.0<br>659 15.6 1.0<br>660 15.6 1.0                                                                                                                         | 656 15.6 1.0<br>657 15.6 1.0                                                                                                        | 653 15.6 1.0<br>654 15.6 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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           | 15.8 1.0<br>15.8 1.0                                                                     | 15.8 1.0                                                                                | 15.8 1.0                                    | 15.8 1.0                                    | 15.8 1.0<br>15.8 1.0                                                                    | 15.8 1.0<br>15.8 1.0                                                                | 606 15.8 1.0                                   |
| Sequence 94. Sequence 17. Sequence 18. Sequence 19. Sequence 19. Sequence 19. Sequence 11. Sequence 11. Sequence 11. Sequence 12. Sequence 13. Sequence 14. Sequence 25. Sequence 26. Sequence 27. Sequence 28. Sequence 18. Sequence 29. Sequence 115. Sequence 29. Sequence 115. Sequence 29. Sequence 117. Sequence 118. Sequence 29. Sequence 118. Sequence 29. Sequence 29. Sequence 119. Sequence 29.                                                                  | 670 15.6 1.0 33 9<br>671 15.6 1.0 33 1<br>672 15.6 1.0 33 1<br>673 15.6 1.0 34 9<br>674 15.6 1.0 34 9<br>675 15.6 1.0 34 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| Sequence 94. Sequence 17. Sequence 18. Sequence 19. Sequence 19. Sequence 19. Sequence 11. Sequence 11. Sequence 11. Sequence 12. Sequence 13. Sequence 14. Sequence 25. Sequence 26. Sequence 27. Sequence 28. Sequence 18. Sequence 29. Sequence 115. Sequence 29. Sequence 115. Sequence 29. Sequence 117. Sequence 118. Sequence 29. Sequence 118. Sequence 29. Sequence 29. Sequence 119. Sequence 29.                                                                  | 670 15.6 1.0 33 9<br>671 15.6 1.0 33 1<br>672 15.6 1.0 33 1<br>673 15.6 1.0 34 9<br>674 15.6 1.0 34 9<br>675 15.6 1.0 34 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| Sequence 94. Sequence 17. Sequence 18. Sequence 19. Sequence 19. Sequence 19. Sequence 11. Sequence 11. Sequence 11. Sequence 12. Sequence 13. Sequence 14. Sequence 25. Sequence 26. Sequence 27. Sequence 28. Sequence 18. Sequence 29. Sequence 115. Sequence 29. Sequence 115. Sequence 29. Sequence 117. Sequence 118. Sequence 29. Sequence 118. Sequence 29. Sequence 29. Sequence 119. Sequence 29.                                                                  | 670 15.6 1.0 33 9<br>671 15.6 1.0 33 1<br>672 15.6 1.0 33 1<br>673 15.6 1.0 34 9<br>674 15.6 1.0 34 9<br>675 15.6 1.0 34 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| Sequence 94. Sequence 17. Sequence 18. Sequence 19. Sequence 19. Sequence 19. Sequence 11. Sequence 11. Sequence 11. Sequence 12. Sequence 13. Sequence 14. Sequence 13. Sequence 25. Sequence 26. Sequence 27. Sequence 28. Sequence 29. Sequence 29. Sequence 31. Sequence 31. Sequence 31. Sequence 32. Sequence 33. Sequence 34. Sequence 34. Sequence 35. Sequence 36. Sequence 37. Sequence 38. Sequence 38. Sequence 39. Sequence 155. Sequence 155. Sequence 175.                                                                                                                                                                                                                                                                                                                                                                                                 | 670 15.6 1.0 33 9<br>671 15.6 1.0 33 1<br>672 15.6 1.0 33 1<br>673 15.6 1.0 34 9<br>674 15.6 1.0 34 9<br>675 15.6 1.0 34 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| 15.8 1.0 45 9 US-09-907-942-94 Sequence 9 15.8 1.0 45 9 US-09-904-820-94 Sequence 9     | 15.8 1.0 45 9 US-09-906-838-94 Sequence 9 15.8 1.0 45 9 US-09-907-613-94 Sequence 9 | 606 15.8 1.0 45 9 US-10-211-069-33 Sequence 3  |
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US-09-904-786-94 Sequence 94, | 15.8 1.0 45 9 US-09-904-859-94 Sequence 94, | 15.8 1.0 45 9 US-09-907-942-94 Sequence 94. 15.8 1.0 45 9 US-09-904-820-94 Sequence 94. | 15.8 1.0 45 9 US-09-906-838-94 Sequence 94.                                         | 606 15.8 1.0 45 9 US-10-211-069-33 Sequence 33 |

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| 728<br>729<br>730<br>731<br>731<br>732<br>733<br>733<br>734<br>739<br>740<br>741<br>743<br>743<br>744<br>745<br>744<br>745<br>746                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | C C C C C C C C C C C C C C C C C C C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                            |
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| 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.0                                                        |
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| US-09-907-841-21 US-09-904-011-21 US-09-906-742-21 US-09-906-742-21 US-09-907-613-21 US-09-907-6859-21 US-09-907-942-21 US-09-907-904-859-21 US-09-908-646-21 US-09-908-700-21 US-09-908-700-21 US-09-903-749A-21 US-09-903-749A-22 US-09-903-749A-21 US-09-903-749A-21 US-09-903-749A-22 US-09-903-749A-22 US-09-903-749A-22 US-09-903-749A-22 US-09-903-749A-22                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | US-09-812-824<br>US-09-812-257-100<br>US-09-812-257-100<br>US-09-812-257-100<br>US-09-812-776-384<br>US-09-991-209-62<br>US-09-991-209-62<br>US-09-994-248-5<br>US-09-994-247-69<br>US-09-825-805-1157<br>US-10-125-635A-370<br>US-09-874-536B-247<br>US-09-784-990-25<br>US-09-784-990-25<br>US-09-179-536B-247<br>US-09-179-536B-247<br>US-09-179-536B-248<br>US-09-179-536B-248<br>US-09-179-536B-248<br>US-09-179-536B-248<br>US-09-179-536B-249<br>US-09-181-094-12<br>US-09-887-784-11<br>US-09-887-784-12<br>US-09-881-094-29<br>US-09-881-094-29<br>US-09-811-094-35<br>US-09-811-094-35<br>US-09-811-094-35<br>US-09-910-644-29<br>US-09-179-536B-250<br>US-09-179-536B-250<br>US-09-179-536B-251<br>US-09-91-209-80<br>US-09-91-209-80<br>US-09-91-209-80<br>US-09-91-209-80<br>US-09-91-209-80<br>US-09-91-209-80<br>US-09-91-209-80<br>US-09-91-209-80<br>US-09-91-209-80<br>US-09-91-209-80<br>US-09-91-209-80<br>US-09-91-209-80<br>US-09-91-209-80<br>US-09-953-351-48<br>US-09-905-218-21<br>US-09-905-218-21<br>US-09-905-218-21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | US-09-759-143-901<br>US-09-780-669-901                     |
| equence equenc | 000 000 000 000 000 000 000 000 000 00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 901, Ap<br>901, Ap                                         |
| 801 15.6<br>802 15.6<br>803 15.6<br>804 15.6<br>805 15.6<br>806 15.6<br>807 15.6<br>808 15.6<br>809 15.4<br>810 15.4<br>811 15.4<br>813 15.4<br>814 15.4<br>815 15.4<br>817 15.4<br>818 15.4<br>819 15.4<br>810 15.4<br>811 15.4<br>812 15.4<br>813 15.4<br>814 15.4<br>815 15.4<br>817 15.4<br>818 15.4<br>819 15.4<br>819 15.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 15. 15. 15. 15. 15. 15. 15. 15. 15. 15.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                            |
| 11.000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.0<br>1.0                                                 |
| บเบเบเบเบเบเบเบลลลลลลล                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 44444444444444444444444444444444444444                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 4 4 4<br>U U U                                             |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <u> </u>                                                   |
| US-10-000-211-20<br>US-09-179-536B-258<br>US-09-918-029-17<br>US-09-918-029-17<br>US-09-920-300A-1257<br>US-10-033-528-1257<br>US-10-033-528-1257<br>US-10-038-271-17<br>2 US-10-038-271-17<br>2 US-10-060-756A-2535<br>US-10-060-756A-2535<br>US-10-060-756A-2535<br>US-10-060-756A-3039<br>0 US-09-866-108-4884<br>0 US-09-866-108-4884<br>0 US-09-866-108-4883<br>0 US-09-866-108-4883<br>0 US-09-866-108-41962<br>0 US-09-866-108-41962<br>0 US-09-895-040A-133<br>0 US-09-895-040A-133<br>0 US-09-895-040A-137<br>US-09-988-462-92                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | US-09-808-037-10 US-09-918-03-11-0 US-09-918-029-22 US-09-918-029-22 US-09-978-06A-18 US-09-978-295A-621 US-09-978-189-621 US-09-978-189-328 US-09-978-395A-378 US-09-978-395A-378 US-09-978-395A-378 US-09-978-395A-378 US-09-978-395A-378 US-09-978-395A-378 US-09-978-395A-378 US-09-978-395A-378 US-09-978-395-3378 US-09-978-3378 US-09-9 | US-10-125-751-22<br>US-10-036-949-47<br>US-09-179-536B-253 |
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| C 899<br>C 899<br>C 892<br>C 893<br>C 894                                                                                                                            | 2 884<br>C 885<br>C 886<br>C 887                                                 | 881<br>882<br>883                                           | c 879                                                      | 876<br>877                                                    | 874<br>875                                                  | 72<br>73                             | 70                                     | ω ω ·                                      | 76                                                       | J 4 L                               | SNI                                              | 0 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 57                                                        | 4 10 7                                                    | 52                                                         | 50 4                                  | 48                                                    | 9.2                                      | ω 4.                                  | 2 11                                 | 0 %                                | 38                                 | 8 G                                   | μ ω<br>Ψ                               | 331                                   | 829<br>830                             | 27                                   | 25 24                                 |
| 15.4<br>15.4<br>15.4<br>15.4<br>15.4                                                                                                                                 | 15.4<br>15.4<br>15.4                                                             | 15.4<br>15.4<br>15.4                                        | 15.4                                                       | 15.4                                                          | 15.4<br>15.4                                                | 15.4<br>15.4                         | 15.4                                   | 15.4                                       | 51 51 5                                                  | л ст с                              | 15.4                                             | 15.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 15.4                                                      | 15.4<br>15.4                                              | 15.4                                                       | 15.4                                  | 15.4                                                  | 15.4<br>15.4                             | 15.4<br>15.4                          | 15.4<br>15.4                         | 15.4<br>15.4                       | 15.4<br>15.4                       | 15.4<br>15.4                          | 15.4<br>15.4                           | 15.4<br>15.4                          | 15.4<br>15.4                           | 15.4                                 | 15.4<br>15.4                          |
| 1                                                                                                                                                                    |                                                                                  |                                                             |                                                            |                                                               |                                                             |                                      |                                        |                                            |                                                          | 1.0                                 | 1.0                                              | 1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                           | 1.0                                                       |                                                            |                                       |                                                       |                                          |                                       |                                      |                                    |                                    |                                       |                                        |                                       |                                        |                                      | 11.0                                  |
| 44447<br>447<br>447                                                                                                                                                  |                                                                                  |                                                             |                                                            |                                                               |                                                             |                                      |                                        |                                            |                                                          |                                     |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                           |                                                           |                                                            |                                       |                                                       |                                          |                                       |                                      |                                    |                                    |                                       |                                        |                                       |                                        |                                      |                                       |
| 10 10 10                                                                                                                                                             | 9 (                                                                              | 10<br>10<br>7                                               | 10                                                         | 999                                                           | 99                                                          |                                      | ۰ ص ص<br>                              | 995                                        | 10                                                       | 10                                  | 10                                               | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 10                                                        | 10                                                        | 10                                                         | 10                                    | 10                                                    | 9<br>10                                  | 99                                    | 10                                   | 10                                 | 10                                 | 9                                     | 99                                     | 9 9                                   | 10<br>10                               | 9 9 5                                | 1 9 L                                 |
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| Sequence 70, Sequence 59, R Sequence 4, Apple 59, R Sequence 15, R Sequence 13, R                        | Sequence 25, A<br>Sequence 69, A<br>Sequence 70, A<br>Sequence 69.               | Sequence 7 Sequence 7                                       |                                                            | Sequence 15<br>Sequence 50                                    | Sequence 48                                                 |                                      |                                        |                                            |                                                          | Sequence 9<br>Sequence 2            | Sequence 96<br>Sequence 1                        | Sequence 2<br>Sequence 1<br>Sequence 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Sequence 2<br>Sequence 4                                  | sequence 7<br>Sequence 7<br>Sequence 74                   | Sequence 16, 1<br>Sequence 830, 1                          | Sequence 1<br>Sequence 1              |                                                       |                                          |                                       | Sequence 4                           | sequence 1                         | Sequence (                         | ·                                     |                                        | ' بر د                                | Sequence                               | Sequence 1:                          | quence<br>uence 1                     |
| 70, Appl<br>9, Appl<br>9, Appl<br>9, Appli<br>5, Appl<br>6, Appl<br>6, Appl                                                                                          | , Appl<br>, Appl<br>, Appl<br>, Appl                                             | 82, Ap<br>82, Ap                                            |                                                            |                                                               |                                                             |                                      | 1 61 6                                 |                                            | ~ ·                                                      |                                     | 10, Appl                                         | 211, Aj<br>[2, Apj                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 23, Āp<br>49, Ap                                          | 77, Appl                                                  | l6, App                                                    | L6, App                               | 1703, ;<br>12, Apr                                    | L, Appi                                  |                                       | 47, App.                             | e 1085, Ap                         | 909, AP                            | 1 W #                                 | 2 4 C                                  | ט - נ                                 | 11, Appl                               | 170, App<br>1, Appl                  | 538, App<br>0, Appl                   |
|                                                                                                                                                                      |                                                                                  |                                                             | 5 p.                                                       |                                                               |                                                             |                                      |                                        | <u>+</u> .                                 |                                                          | . سز متر                            |                                                  | op<br>pl                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -<br>-                                                    | - 51 51                                                   | - <u>-</u>                                                 |                                       | — o o                                                 |                                          |                                       | <u> </u>                             | סי סי                              | ן מי                               |                                       |                                        |                                       |                                        | - Pop                                | pp                                    |
| 0 961<br>0 963<br>0 963<br>0 965<br>0 965                                                                                                                            | a                                                                                | 0 0                                                         | ) a                                                        | <u>-</u>                                                      |                                                             | C                                    |                                        | 00                                         | <u> </u>                                                 |                                     | 0.0                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 0                                                         | 0.0                                                       |                                                            | 0                                     |                                                       |                                          |                                       |                                      |                                    |                                    |                                       |                                        |                                       |                                        |                                      |                                       |
|                                                                                                                                                                      | 256 15.<br>257 15.<br>258 15.<br>260 15.                                         | 0 953 15.<br>0 954 15.                                      | c 951 15.                                                  | 949 15.<br>0 950 15.                                          | 945 15.<br>947 15.                                          | 944 15<br>945 15                     | 942 15<br>943 15                       | c 940 15<br>c 941 15                       | 938 15<br>c 939 15                                       | 936 15<br>937 15                    | c 934 15<br>935 15                               | c 931 15<br>c 932 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | c 929 15<br>930 15                                        | c 926 15<br>c 927 15<br>928 15                            | 924 15<br>925 15                                           | 922 15<br>c 923 15                    | 919 15.<br>920 15.<br>921 15                          | 917<br>918                               | 916                                   | 913                                  | 911<br>912                         | 910                                | 908                                   | 906                                    | 904                                   | 902                                    | 900                                  | c 897<br>898                          |
| 960 15.<br>962 15.<br>963 15.<br>964 15.<br>965 15.<br>966 15.<br>967 15.                                                                                            | 957 15.2 1.<br>957 15.2 1.<br>0 958 15.2 1.<br>959 15.2 1.                       | c 954 15.2 1. c 955 15.2 1. c 955 15.2 1. c                 | c 951 15.2 1<br>952 15.2 1                                 | 949 15.2 1<br>949 15.2 1<br>C 950 15.2 1                      | 946 15.2 1<br>947 15.2 1<br>948 15.2 1                      | C 944 15.2 1                         | 942 15.2 1<br>943 15.2 1               | c 940 15.2 1<br>c 941 15.2 1               | 938 15.2 1<br>c 939 15.2 1                               | 936 15.2 1<br>937 15.2 1            | C 933 15.2 1<br>C 934 15.2 1<br>935 15.2 1       | c 931 15.2 1<br>c 932 15.2 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | c 929 15.2 1<br>930 15.2 1                                | c 926 15.2 1<br>c 927 15.2 1<br>928 15.2 1                | 924 15.2 1<br>925 15.2 1                                   | 922 15.4 1<br>C 923 15.4 1            | 920 15.4 1<br>920 15.4 1<br>921 15.4 1                | 918 15.4 1                               | 915 15.4 1                            | 913 15.4 1                           | 911 15.4 1<br>912 15.4 1           | 909 15.4 1<br>910 15.4 1           | 907 15.4 1                            | 906 15.4                               | 903 13.4 1.                           | 901 15.4 1.                            | 899 15.4<br>900 15.4                 | C 897 15.4 1.<br>898 15.4 1.          |
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 GENERAL INFORMATION:
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 Query Match
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Matches
 CURRENT APPLICATION NUMBER: US/09/782,650
CURRENT FILING DATE: 2001-02-12
PRIOR APPLICATION NUMBER: US 09/324,079
PRIOR FILING DATE: 1999-06-01
PRIOR APPLICATION NUMBER: US 09/327,045
PRIOR FILING DATE: 1999-06-07
PRIOR FILING DATE: 1999-06-07
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 PRIOR APPLICATION NUMBER: PCT/US00/14988
PRIOR FILING DATE: 2000-05-31
NUMBER OF SEQ ID NOS: 24
SOFTWARE: Patentin Ver. 2.1
 APPLICANT: Mitterer, Artur
APPLICANT: Falkner, Falko-Guenter
APPLICANT: Scheiflinger, Friedrich
APPLICANT: Borner, Friedrich
APPLICANT: Edwards LifeSciences Corporation
TITLE OF INVENTION: Targeted Anglogenesis
FILE REFERENCE: 20553D-000611US
 APPLICANT: Levine, Arnold J. APPLICANT: Mitterer, Artur
 OTHER INFORMATION: Description of Artificial Sequence:annealed OTHER INFORMATION: oligonucleotide
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 FEATURE:
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 US-10-056-414-577
US-09-927-122-49
US-09-927-122-49
US-09-504-231A-2464
US-09-504-231A-2664
US-09-774-553D-2453
US-09-774-553D-2664
US-09-824-924-2
US-10-116-288-10
US-09-918-696-43
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0 US-09-778-175-16

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US-09-864-785-742

US-09-864-785-742

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US-09-940-244-205

US-09-940-244-205
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US-09-940-550A-7
US-09-988-462-91
 US-09-908-805B-55
 us-09-872-153-27
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 Score 31.4; DB 10;
Pred. No. 1.2e+03;
 US-09-473-872-30
 ALIGNMENTS
Mismatches
 Length 50;
 Sequence 7, Appli
Sequence 7, Appli
Sequence 91, Appl
Sequence 27, Appl
Sequence 2453, Ap
Sequence 2664, Appl
Sequence 2664, Appl
Sequence 2, Appli
Sequence 10, Appli
Sequence 10, Appli
Sequence 16, Appl
Sequence 17, Appl
Sequence 17, Appl
Sequence 17, Appl
Sequence 74, Appl
Sequence 742, Appl
Sequence 742, Appl
Sequence 75, Appl
Sequence 75, Appl
Sequence 75, Appl
Sequence 23, Appl
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Sequence
Sequence
 Sequence
Sequence
 Sequence 55, App.
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 7, Appli
24, Appl
85, Appl
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RESULT 2
US-09-883-848A-37/c
; Sequence 37, Application US/09883848A
; Publication No. US20030022819A1
; GENERAL INFORMATION:
 Вb
 QΥ
 ; OTHER INFORMATION: Description of Artificial Sequence: ; OTHER INFORMATION: Oligonucleotide US-09-883-848A-37
 밁
 20
 ; OTHER INFORMATION: Description of Artificial Sequence: Synthetic RNA US-09-828-034-7
 US-09-828-034-7/c
 RESULT 3
 멍
 Ω
 SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 37
LENGTH: 29
 GENERAL INFORMATION:
 Sequence 7, Application US/09828034 Patent No. US20020064771A1
 Query Match
Best Local Similarity
 SEQ ID NO 7
 Matches
 APPLICANT: Sanicola-Nadel, M. TITLE OF INVENTION: ANGIOGENESIS-MODULATING COMPOSITIONS AND USES FILE REFERENCE: CIBT-P01-119
CURRENT APPLICATION NUMBER: US/09/883,848A
CURRENT FILING DATE: 2001-06-18
 Matches
 Query Match
Best Local S
 PRIOR APPLICATION NUMBER: 60/211,919
PRIOR FILING DATE: 2000-06-16
NUMBER OF SEQ ID NOS: 48
 APPLICANT: Ling, L. APPLICANT: Sanicol
 CURRENT EILING DATE: 2001-04-06
PRIOR APPLICATION NUMBER: U.S. 60/195,852
PRIOR FILING DATE: 2000-04-06
NUMBER OF SEQ ID NOS: 33
SOFTWARE: Patentin Ver. 2.1
 APPLICANT: Hong, Zhi
APPLICANT: Ferrari, Eric
TITLE OF INVENTION: HCV REPLICASE COMPLEXES
FILE REFERENCE: IN01165
CURRENT APPLICATION NUMBER: US/09/828,034
CURRENT FILING DATE: 2001-04-06
 APPLICANT: Zhong, Weidong
 ORGANISM: Artificial Sequence FEATURE:
 TYPE: DNA
 LENGTH: 30
TYPE: RNA
ORGANISM: Artificial Sequence
 1546 GGGGGCCGGGGAGGGGGC 1575
 221 TGCGGACCGGGCAGGGGGTTCG 242
 22 TGCGGACCGGGCAGGGGGTTCG 1
 7
 30
 Similarity
 Conservative
 Conservative
 100.08;
 1.4%;
 0;
 Score 22;
Pred. No.
 Score 22;
Pred. No.
 Mismatches
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 6.2e+04;
 6.2e+04;
 DB 9;
 DB 10;
 Length 29;
 Length 30
 Indels
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 0
 Gaps
 Gaps
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 0
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RESULT 4 US-10-006-856A-151

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 ; TYPE: DNA; ORGANISM: adeno-associated virus US-10-135-984-6
 ρ
 US-10-135-984-6
 ; OTHER INFORMATION: Synthetic oligonucleotide probe
US-10-006-856A-151
 Matches
 Query Match
 SEQ ID NO 6
 Sequence 6, Application US/10135984 Publication No. US20020182595A1 GENERAL INFORMATION:
 Prior Application removed - See File Wrapper or Palm SEQ ID NO 151
 Query Match
Best Local Similarity
 FILE REFERENCE: SALKINS.041A
CURRENT APPLICATION NUMBER: US/10/135,984
CURRENT FILING DATE: 2002-08-05
PRIOR APPLICATION NUMBER: 60/286951
PRIOR FILING DATE: 2001-04-27
 Matches
 APPLICANT: Anton J. Cathomen
TITLE OF INVENTION: METHOD OF IDENTIFYING CELLULAR
TITLE OF INVENTION: REGULATORS OF ADENO-ASSOCIATED VIRUS (AAV)
 GENERAL INFORMATION:
 Publication No.
 Sequence 151, Application US/10006856A Publication No. US20030044841A1
 NUMBER OF SEQ ID NOS:
 APPLICANT: Matthew D. Weitzman APPLICANT: Anton J. Cathomen
 TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same FILE REFERENCE: P2830PIC14 CURRENT APPLICATION NUMBER: US/10/006,856A CURRENT FILING DATE: 2002-05-10 NUMBER OF SEQ ID NOS: 477
 APPLICANT:
 TYPE: DNA
ORGANISM: Artificial Sequence
 APPLICANT:
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 APPLICANT:
 APPLICANT:
 LENGTH: 45
 APPLICANT:
 LENGTH: 45
 763 GGTGCACCTGGAGCAGGGGGGCACCAAGCTGGTGAAGGA 801
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 1 GCGAGGCAGCCAGCGAGGGAGGAGAGAGAGAGCGAGCCG 40
 5 GTGAGCGAGCGAGCGCAGGTGAGCGAGCGAGCGCAG 44
 28;
 28;
 FastSEQ for Windows Version 4.0
 Baker,
 Goddard, Audrey
Godowski, Paul J.
Grimaldi, Christopher J.
 Gao,
 Fong,
 Gurney, Austin L.
Hillan, Kenneth J.
 Paoni, Nicholas F.
 Ferrara, Napoleone
 Desnoyers, Luc
 Botstein, David
 Pan, James
 Eaton, Dan
 Conservative
 Conservative
 Wei-Qiang
 Kevin P.
 Sherman
 1.3%;
 1.4%;
 0;
 Score 21.4; DB 9;
Pred. No. 8.3e+04;
0; Mismatches 11
 Score 20.8; DB 9; Pred. No. 1.1e+05;
 Mismatches
 DB 9;
 12;
 Length 45;
 Length 45;
 Indels
 Indels
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 0;
 Gaps
 Gaps
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 0,
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RESULT 6

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US-10-135-984-7/c
; Sequence 7, Application US/10135984
; Publication No. US20020182595A1
; GENERAL INFORMATION:
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 ; TYPE: DNA; ORGANISM: adeno-associated virus US-10-135-984-5
 RESULT 8
 В
 US-10-135-984-5/c
 US-10-135-984-4
 US-10-135-984-4
 Query Match
Best Local Similarity
 GENERAL INFORMATION:
 Matches
 SEQ ID NO 5
 Sequence 4, Application US/10135984 Publication No. US20020182595A1 GENERAL INFORMATION:
 Sequence 5, Application US/10135984 Publication No. US20020182595A1
 SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 4
APPLICANT: Matthew D. Weitzman
APPLICANT: Anton J. Cathomen
TITLE OF INVENTION: METHOD OF IDENTIFYING CELLULAR
TITLE OF INVENTION: REGULATORS OF ADENO-ASSOCIATED VIRUS (AAV)
FILE REFERENCE: SALKINS, 041A
CURRENT APPLICATION NUMBER: US/10/135,984
CURRENT FILING DATE: 2002-08-05
 TITLE OF INVENTION: REGULATORS OF ADENO-ASSOCIATED VIRUS (AAV) FILE REFERENCE: SALKINS.041A CURRENT APPLICATION NUMBER: US/10/135,984 CURRENT FILING DATE: 2002-08-05 PRIOR APPLICATION NUMBER: 60/286951 PRIOR FILING DATE: 2001-04-27
 Matches
 Query Match
 APPLICANT: Anton J. Cathomen
TITLE OF INVENTION: METHOD OF IDENTIFYING CELLULAR
TITLE OF INVENTION: REGULATORS OF ADENO-ASSOCIATIONS
 SOFTWARE:
 APPLICANT: Matthew D. Weitzman APPLICANT: Anton J. Cathomen
 PRIOR APPLICATION NUMBER: 60/286951 PRIOR FILING DATE: 2001-04-27 NUMBER OF SEQ ID NOS: 8
 APPLICANT: Anton J. Cathomen
TITLE OF INVENTION: METHOD OF IDENTIFYING CELLULAR
TITLE OF INVENTION: REGULATORS OF ADENO-ASSOCIATED VIRUS (AAV)
 NUMBER OF SEQ ID NOS:
 CURRENT APPLICATION NUMBER: US/10/135,984
CURRENT FILING DATE: 2002-08-05
 FILE REFERENCE: SALKINS.041A
 APPLICANT: Matthew D. Weitzman APPLICANT: Anton J. Cathomen
 ORGANISM: adeno-associated virus
 TYPE: DNA
 LENGTH:
 LENGTH: 46
 45 GTGAGCGAGCGAGCGCGCGCGCGCGCGCGCGCGCAG
 1 GCGAGGCAGCCAGCGAGGGAGAGAGAGAGAGCGAGCCG 40
 Local Similarity es 28; Conserv
 6 GTGAGCGAGCGAGCGCAGCGAGCGAGCGCGCAG 45
 1 GCGAGGCAGCCAGCGAGGGAGAGCGAGCGGGCGAGCCG 40
 28;
 46
 FastSEQ for Windows Version 4.0
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 Pred. No. 1.1e
); Mismatches
 Score 20.8; DB 9;
Pred. No. 1.1e+05;
 Score 20.8; DB 9; Pred. No. 1.1e+05;
 Mismatches
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 12;' Indels
 Length 46;
 Length 46;
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 0,
 Gaps
 Gaps
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0;

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 Qy.
 ; NAME/KEY: misc_feature; LCATION: (0)...(0); CTHER INFORMATION: phosphorothioate backbone US-09-888-326-172
 В
 US-10-027-961A-14
 US-09-888-326-172/c
 US-10-135-984-7
 Sequence 14, Application US/10027961A
Publication No. US20030032789A1
GENERAL INFORMATION:
APPLICANT: O'NEILL, GARY P.
APPLICANT: MANCINI, JOSEPH A.
APPLICANT: MANCINI, JOSEPH A.
TITLE OF INVENTION: HIGH LEVEL EXPRESSION OF HUMAN
TITLE OF INVENTION: CYCLOOXYGENASE-2
FILE REFERENCE: 19029PCADA
FILE REFERENCE: 19029PCADA
 TITLE OF INVENTION: Methods for Enhancing Antibody-Induced TITLE OF INVENTION: Cell Lysis and Treating Cancer FILE REFERENCE: C1039/7052 (AWS)
CURRENT APPLICATION NUMBER: US/09/888,326
CURRENT FILING DATE: 2001-06-22
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR APPLICATION NUMBER: US 60/213,346
PRIOR FILING DATE: 2000-06-22
NUMBER OF SEQ ID NOS: 848
SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 172
 GENERAL INFORMATION:
 SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 7
 Publication No.
 Sequence 172, Application US/09888326
 Matches
 Query Match
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 Query Match
 CURRENT APPLICATION NUMBER: US/10/027,961A CURRENT FILING DATE: 2001-10-25 PRIOR APPLICATION NUMBER: 09/599,781 PRIOR FILING DATE: 2000-06-21
 PRIOR APPLICATION NUMBER: 60/286951 PRIOR FILING DATE: 2001-04-27
 PRIOR APPLICATION NUMBER: 08/930,589
PRIOR FILING DATE: 1996-02-22
PRIOR APPLICATION NUMBER: PCT/CA94/00501
 APPLICANT: Weiner, George APPLICANT: Hartmann, Gun
 NUMBER OF SEQ ID NOS:
 TYPE: DNA ORGANISM: adeno-associated virus
 OTHER INFORMATION: Synthetic oligonucleotide
 FEATURE:
 TYPE: DNA ORGANISM: Artificial Sequence
 ENGTH:
 ENGTH:
 Local Similarity
 45 GTGAGCGAGCGAGCGCGCGCGCGCGCGCGCGCGCAG
 Local Similarity
 1 GCGAGGCAGCCAGCGAGGGAGAGAGCGAGCGGGCGAGCCG 40
FILING DATE: 1999-09-13
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 46
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 US20030026801A1
 1.3%;
 1.3%;
 Gunther
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 0; Mismatches
 Score 20.8; DB 9;
Pred. No. 1.1e+05;
0; Mismatches 12;
 Score 20.4; DB 9;
Pred. No. 1.2e+05;
 Mismatches
 DB 9; Length 35;
 Length 46;
 Indels
 0;
 0;
 Gaps
 0;
 0
 RESULT 12
US-10-072-152-32
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 US-10-027-961A-14
 US-09-740-002-9
 US-09-740-002-9
 GENERAL INFORMATION:
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 Sequence 9, Application US/09740002
Patent No. US20020001798A1
 SEQ ID NO 14
 Patent No. US20020142438A1
 Sequence 32,
 Matches
 SEQ ID NO 9
 Query Match
 Matches
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 Query Match
 APPLICANT:
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 PRIOR APPLICATION NUMBER: 08/488,376
PRIOR FILING DATE: 1995-06-07
NUMBER OF SEQ ID NOS: 27
 PRIOR APPLICATION NUMBER: 09/335,697 PRIOR FILING DATE: 1999-06-18
 PRIOR APPLICATION NUMBER: 08/084,033 PRIOR FILING DATE: 1993-09-27 PRIOR APPLICATION NUMBER: 08/064,271
 PRIOR FILING DATE: 1993-05-06 PRIOR APPLICATION NUMBER: 07/994,760
 APPLICANT:
 APPLICANT:
 APPLICANT:
 APPLICANT:
APPLICANT:
 SOFTWARE: PatentIn Ver. 2.1
 TYPE: DNA
ORGANISM: Human
 ORGANISM: Artificial Sequence
 TYPE: DNA
 FEATURE:
 LENGTH: 41
 LENGTH:
 Local Similarity
 49
 Andersen, Lene N.
 Kauppinen, Markus
Schnorr, Kirk
 Moller, Soren Glad, Sanne O.
 Application US/10072152
 Bjornvad, Mads E
 Lange, Niels E.
 Schulein,
Kongsbak, Lars
 Conservative
 Conservative
 1.3%;
71.1%;
 1.3%;
71.1%;
 Martin
 0
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APPLICANT: BRAMS, PETER
APPLICANT: MORROW, PHILLIP
ITITLE OF INVENTION: NEUTRALIZING HIGH AFFINITY HUMAN MONOCLONAL ANTIBODIES
TITLE OF INVENTION: SPECIFIC TO RSV F-PROTEIN AND METHODS FOR THEIR
TITLE OF INVENTION: MANUFACTURE AND THERAPEUTIC USE THEREOF
FILE REFERENCE: 037003-0275759
CURRENT APPLICATION NUMBER: US/09/740,002
CURRENT FILING DATE: 2000-12-20
CURRENT FILING DATE: 2000-12-20
 PRIOR FILING DATE: 1992-12-22
NUMBER OF SEQ ID NOS: 23
SOFTWARE: FastSEQ for Windows Version 4.0
 OTHER INFORMATION: Description of Artificial Sequence: Primer
 183 TCCTCGTCTCCTCGCTGCTGGTATGCTCGGGACTGGCG 220
 19 GAGAGAGCGAGCGGGCGAGCGAGGGAAGGGAAA 56
 3 TECTCECCCCCCCCCCTCCTGCTGCGCGGTCCTGGCG
2 GAGAGAGAGAGAGAGCCAGATACACGATGTGAAA 39
 Score 20.4; DB 10
Pred. No. 1.3e+05;
 Score 20.4; DB 9; Pred. No. 1.3e+05;
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 DB 10;
 Length 41;
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US-09-992-598-122; Sequence 122; A
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 ; OTHER INFORMATION: Primer US-10-072-152-32
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 Patent No. US20020160384A1
 SOFTWARE: Fa
 APPLICANT:
 APPLICANT: APPLICANT:
 Matches
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CURRENT APPLICATION NUMBER: US/09/92,598
CURRENT EILING DATE: 2001-11-14
PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
 APPLICANY: Zhang, Zemin
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2730P1C20
 APPLICANT:
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 APPLICANT:
 NUMBER OF SEQ ID NOS:
 PRIOR FILING DATE:
 PRIOR APPLICATION NUMBER: 1344/97
PRIOR FILING DATE: 1997-11-24
PRIOR APPLICATION NUMBER: 60/067,249
 PRIOR APPLICATION NUMBER: US/09/198,955
PRIOR FILING DATE: 1998-11-24
PRIOR APPLICATION NUMBER: 1343/97
PRIOR FILING DATE: 1997-11-24
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 PRIOR FILING DATE: 1997-12-02
 CURRENT APPLICATION NUMBER: US/10/072,152
CURRENT FILING DATE: 2002-02-07
 TITLE OF INVENTION: NO. US20020142438Alel Pectate Lyases FILE REFERENCE: 5378.200-US
 TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
 LENGTH: 48
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 APPLICATION NUMBER: 09/184,217 FILING DATE: 1998-11-02
 APPLICATION NUMBER: 09/073,684 FILING DATE: 1998-05-06
 APPLICATION NUMBER: 60/067,240 FILING DATE: 1997-12-02
 28;
 Similarity
 FastSEQ for Windows Version 4.0
 Ashkenazi, Avi J.
Baker, Kevin P.
 Wood, William I.
 Watanabe, Colin K. Williams, P. Mickey
 Tumas,
 Roy, Margaret Ann
Stewart, Timothy A.
 Paoni
 Gurney, Austin L.
 Grimaldi, J. Christopher
 Godowski, Paul J.
 Goddard, Audrey
 Gerritsen, Mary E.
 Gerber, Hanspeter
 Fong, Sherman
 Napier, Mary A.
 Kljavin, Ivar J.
 Ferrara, Napoleone
 Desnoyers, Luc
 Botstein, David
 Eaton, Dan
 Application US/09992598
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 James
 Nicholas F.
 Daniel
 1.3%;
 Score 20.2;
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 Pred.
 Mismatches
 .4e+05
 DB 12;
 13;
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 Indels
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 Gaps
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PRIOR FILING DATE: PRIOR APPLICATION NUMBER: 60/065311 PRIOR APPLICATION NUMBER: 60/062250 PRIOR FILING DATE: 1997-10-17 FILING DATE: 1998-06-1 APPLICATION NUMBER: 60, FILING DATE: 1998-06-1 APPLICATION NUMBER: 60/089105 FILING DATE: 1998-06-12 APPLICATION NUMBER: FILING DATE: 1998-00 APPLICATION NUMBER: FILING DATE: FILING DATE: FILING DATE: APPLICATION NUMBER: FILING DATE: FILING DATE: APPLICATION NUMBER: APPLICATION NUMBER: 60/088742 FILING DATE: APPLICATION NUMBER: APPLICATION NUMBER: APPLICATION NUMBER: FILING DATE: 1998-06-05 APPLICATION NUMBER: 60/088202 FILING DATE: 1998-06-05 APPLICATION NUMBER: FILING DATE: 1998-06 APPLICATION NUMBER: 60/ FILING DATE: 1998-06-10 APPLICATION NUMBER: APPLICATION NUMBER: APPLICATION NUMBER: 60/ FILING DATE: 1998-06-05 APPLICATION NUMBER: 60/087106 FILING DATE: 1998-05-28 APPLICATION NUMBER: 60/087607 FILING DATE: 1998-06-04 APPLICATION NUMBER: FILING DATE: FILING DATE: 1998-06-04 APPLICATION NUMBER: 60/ APPLICATION NUMBER: 60/075945 FILING DATE: 1997-10-17
APPLICATION NUMBER: 60/065186
FILING DATE: 1997-11-12 APPLICATION NUMBER: FILING DATE: 1998-06-04 APPLICATION NUMBER: APPLICATION NUMBER: APPLICATION NUMBER: FILING DATE: 1998-00 APPLICATION NUMBER: 60/087827 FILING DATE: 1998-06-03 FILING DATE: 1998-06-02 APPLICATION NUMBER: FILING DATE: APPLICATION NUMBER: 60/084600 FILING DATE: 1998-03-20 FILING DATE: FILING DATE: APPLICATION NUMBER: APPLICATION NUMBER: 60/087759 FILING DATE: 1998-06-02 FILING DATE: APPLICATION NUMBER: 60/083322 FILING DATE: 1998-04-28 FILING DATE: 1998-02-25 APPLICATION NUMBER: 60/078910 FILING DATE: 1997-11-24 APPLICATION NUMBER: 60/066770 FILING DATE: 1997-11-13 1998-06-1 1998-06-1 1998-06-10 1998-06-10 1998-06-10 1998-06-10 1998-06-10 1998-06-1998-06-04 1998-06-04 1998-06-05 1998-06-04 1998-06-02 1998-06-04 1998-05-07 .998-06-04 60/088876 60/088858 60/088734 60/088861 60/088826 60/088655 60/088217 60/088824 60/088810 60/088738 60/088212 60/088167 60/088326 60/088033 60/088030 60/088029 60/088028 60/088026 60/088025 60/088021 60/087609

APPLICATION NUMBER: 60/089512

APPLICATION NUMBER: 60/089598 FILING DATE: 1998-06-17

FILING DATE: 1998-06-17 APPLICATION NUMBER: 60/089538

APPLICATION NUMBER: FILING DATE: 1998-06 FILING DATE: 1998-06-16 FILING DATE: 1998-06-16 APPLICATION NUMBER: 60/089514

1998-06-17

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RESULT 14
US-09-989-293A-122
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 CURRENT APPLICATION NUMBER: US/09/989,293A
CURRENT FILING DATE: 2001-11-20
PRIOR APPLICATION NUMBER: 60/049787
PRIOR FILING DATE: 1997-06-16
PRIOR APPLICATION NUMBER: 60/062250
PRIOR APPLICATION NUMBER: 60/062250
PRIOR FILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/065186
PRIOR APPLICATION NUMBER: 60/065311
PRIOR APPLICATION NUMBER: 60/065311
 GENERAL
 sequence 122, Application US/09989293A
Patent No. US20020177164A1
 Matches
 Query Match
 APPLICANT:
APPLICANT:
 APPLICANT:
APPLICANT:
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 APPLICANT: Zhang, Zemin
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2730911C66
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 APPLICANT:
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 1400 GCTCCAGGTGCTGCCGACGCTCCGGGTGCGGGGGCCCACCGCGGG 1443
 OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091626
OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091633
OR FILING DATE: 1998-07-02
OR APPLICATION NUMBER: 60/091978
OR FILING DATE: 1998-07-07
OR APPLICATION NUMBER: 60/091982
OR FILING DATE: 1998-07-07
OR APPLICATION NUMBER: 60/091982
OR APPLICATION NUMBER: 60/092182
 DR APPLICATION NUMBER: 60/091360
PR FILING DATE: 1998-07-01
DR APPLICATION NUMBER: 60/091478
DR FILING DATE: 1998-07-02
DR APPLICATION NUMBER: 60/091544
DR FILING DATE: 1998-07-01
 Local
 FILING DATE: 1998-07-09
 APPLICATION NUMBER: 60/090863 FILING DATE: 1998-06-26
APPLICATION NUMBER: 60/066770
 APPLICATION NUMBER:
 FILING DATE: 1997-11-13
 INFORMATION:
 29;
 Similarity
 Ashkenazi, Avi J.
 Watanabe, Colin K. Williams, P. Mickey Wood, William I.
 Paoni, Nicholas F.
Roy, Margaret Ann
Stewart, Timothy A.
 Gurney, Austin L.
 Grimaldi, J. Christopher
 Godowski, Paul
 Goddard, Audrey
 Gerritsen, Mary
 Gerber, Hanspeter
 Fong, Sherman
 Ferrara, Napoleone
 Eaton, Dan
 Desnoyers, Luc
 Botstein, David
 Tumas,
 Kljavin, Ivar J.
 Baker,Kevin P
 Napier, Mary A.
 Conservative
 Daniel
 1.3%;
 60/091519
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 Score 20; DB 9;
Pred. No. 1.5e+05;
 Mismatches
 15;
 Length 45;
 Indels
 0;
 Gaps
 0,
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FILING DATE: 1998-06-25 APPLICATION NUMBER: 60/090694 FILING DATE: 1998-06-25

APPLICATION NUMBER: 60/090690

APPLICATION NUMBER: 60/090676
FILING DATE: 1998-06-25
APPLICATION NUMBER: 60/090678
FILING DATE: 1998-06-25

APPLICATION NUMBER: 60/ FILING DATE: 1998-06-24

60/090557

FILING DATE: 1998-06-24

APPLICATION NUMBER: 60/090540 FILING DATE: 1998-06-24 APPLICATION NUMBER: 60/090542

FILING DATE: 1998-06-24 APPLICATION NUMBER: 60/ APPLICATION NUMBER:

60/090535 60/090472

APPLICATION NUMBER: 60/090445 FILING DATE: 1998-06-24 APPLICATION NUMBER: 60/ FILING DATE: 1998-06-24 FILING DATE: 1998-06-23
APPLICATION NUMBER: 60/090355
FILING DATE: 1998-06-23

FILING DATE: 1998-06-22 APPLICATION NUMBER: 60/090349 APPLICATION NUMBER: 60/090254

APPLICATION NUMBER: 60/090431 FILING DATE: 1998-06-24

FILING DATE: 1998-06-24 APPLICATION NUMBER:

60/090429

APPLICATION NUMBER: 60/090435

1998-06-24

60/090444

FILING DATE:

APPLICATION NUMBER: 60/090252 FILING DATE: 1998-06-22

FILING DATE:

APPLICATION NUMBER: 60/089948 FILING DATE: 1998-06-19 APPLICATION NUMBER: 60/089947 FILING DATE: 1998-06-19 APPLICATION NUMBER: 60/089908 FILING DATE: 1998-06-18

APPLICATION NUMBER: 60/089952

APPLICATION NUMBER: 60/090246

1998-06-22 1998-06-19

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FILING DATE: 1998-06-18

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PRIOR FILING DATE: 1998-07-09
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DR FILING DATE: 1998-02-25
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FILING DATE: 1998-04-28
 APPLICATION NUMBER: 60/065186
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 Ashkenazi, Avi J.
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 Gerritsen, Mary E.
 Gerber, Hanspeter
 Ferrara, Napoleone
 Eaton, Dan L.
 Desnoyers, Luc
 Botstein, David
 Baker, Kevin P
 Goddard, Audrey
 Fong, Sherman
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 Wood, William I.
 Watanabe, Colin K. Williams, P. Mickey
 Napier, Mary A.
 Kljavin,Ivar J.
 Gurney, Austin L.
 Grimaldi,J.Christopher
 Godowski,Paul J.
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 Tumas,
 Paoni, Nicholas F.
 James
 Margaret Ann art, Timothy A.
 Zemin
 Daniel
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FILING DATE: 1998-06-24
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 60/089653
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US-09-990-444-122
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APPLICANT: Ashkenazi, Avi J.
APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
 Sequence 122, A Publication No.
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 PRIOR APPLICATION NUMBER: 60/065186
PRIOR FILING DATE: 1997-11-12
PRIOR APPLICATION NUMBER: 60/065311
PRIOR FILING DATE: 1997-11-13
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CURRENT FILING DATE: 2001-11-14
PRIOR APPLICATION NUMBER: 60/049787
PRIOR PILING DATE: 1997-06-16
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PRIOR APPLICATION NUMBER: 60/062250
PRIOR FILING DATE: 1997-10-17
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PRIOR FILING DATE: 1997-10-17
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APPLICATION NUMBER: 60/087609
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 Williams, P. Mickey
 Watanabe,
 Stewart,
 Roy, Margaret Ann
Stewart, Timothy A.
 Gurney, Austin L.
Kljavin, Ivar J.
 Gerritsen, Mary E.
 Gerber, Hanspeter
 Paoni
 Pan,James
 Napier, Mary A.
 Grimaldi,J.Christopher
 Godowski,Paul J.
 Goddard, Audrey
 Fong,Sherman
 Ferrara, Napoleone
 Eaton, Dan L.
 Desnoyers,Luc
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 Zhang, Zemin
 Tumas,
 Wood, William I.
 Watanabe, Colin K.
Williams, P. Micke
 Roy, Margaret Ann
Stewart, Timothy A.
Tumas, Daniel
 Paoni, Nicholas F.
 Napier, Mary A.
 Gurney,Austin L.
Kljavin,Ivar J.
 Grimaldi, J.Christopher
 Godowski, Paul J.
 Goddard, Audrey
 Gerritsen, Mary E.
 Gerber, Hanspeter
 Fong, Sherman
 Ferrara, Napoleone
 Desnoyers,Luc
 Baker, Kevin P.
Botstein, David
 Pan,James
 Eaton, Dan L.
 Application US/09989730 p. US20020197674A1
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 1998-05-07
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 Wood, William I.
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 Napier, Mary A.
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APPLICANT: Baker, Kevin P.
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
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FILING DATE: 1998-06-24
APPLICATION NUMBER: 60/090676
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 APPLICATION NUMBER: 60/091633 FILING DATE: 1998-07-02
 FILING DATE: 1998-07-02
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Fong, Sherman
Gerber, Hanspeter
Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Grimaldi, J. Christopher
Gurney, Austin L.
Kljavin, Ivar J.
 Ashkenazi, Avi J.
 Ferrara, Napoleone
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 Baker, Kevin P
 Eaton, Dan L.
 Desnoyers, Luc
 Conservative
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Gaps

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Length 45; Indels

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APPLICANT:

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 APPLICATION NUMBER: 60/083322
 FILING DATE: 1998-03-
 APPLICATION NUMBER: 60/078910
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 Wood, William I.
 Williams,
 Tumas,
 Stewart,
 Watanabe,
 Paoni, Nicholas F.
 Margaret Ann art, Timothy A.
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 Zemin
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 998-04-28
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P. Mickey
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Stewart, Timothy A.
 Gurney, Austin L.
Kljavin, Ivar J.
 Goddard, Audrey
Godowski, Paul J.
 Botstein, David
 Baker, Kevin P
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 Gerber, Hanspeter
 Fong, Sherman
 Ferrara, Napoleone
 Eaton, Dan L.
 Desnoyers, Luc
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 Pan,James
 Napier, Mary A.
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 1998-06-2
 1998-07-01
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PRIOR FILING DATE: 1997-11-12
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 Zhang, Zemin
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1998-06-10

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TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
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 APPLICANT: Ashkenazi, Avi J.
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 Watanabe, Colin K. Williams, P. Mickey Wood, William I.
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Stewart, Timothy A.
 Tumas, Daniel
 Paoni, Nicholas F.
 Pan, James
 Kljavin, Ivar
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 Grimaldi, J. Christopher
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 Gaps
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FILING DATE: 1998-06-25

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US-09-990-438-122
Sequence 122, Application US/09990438
Diblication No. US20030027754A1
GENERAL INFORMATION:
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APPLICANT: KALIYAPERUMAL, Arunan
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Maximum Match
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Database

Result No.

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| ^ | c 148<br>c 149<br>c 150<br>c 151<br>c 152                                                                                      | c 145<br>c 146                      |                      |                                  | c 138                  | C 135<br>C 136       |                      | c 131<br>c 132       | 129<br>130           |                      | c 125<br>c 126       |                      |                      | c 119                |                      | 115                  | 113<br>114           | c 111<br>112         |                      |                       | c 105                |                      | c 101<br>c 102       |                               | c 97<br>98           |                      | c 93                 |                        | c 89                 | c 87<br>88             | C<br>85<br>85        | c 82                   |                        |
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|   |                                                                                                                                | 1 1 1 1<br><br>                     | <br>ω ω ω            | . μ μ<br>. ω ω                   | <br>                   | - μ μ<br>ω ω ω       | <br>                 | 1.3                  | 1.3                  | 1.3                  | 1.3                  | 1.3                  | . u .                | <br>                 | <br>                 | . μ. μ<br>. ω ω      | <br>                 | μ.<br>ω ω            | 1.3                  | 1.3                   | 1.3                  |                      | 1.3                  | 1.3                           | 1.3                  | 1.3<br>1.3           | 1.<br>3.<br>3.       | 1.3                    | 1.4                  | 1.4                    | 1.4                  | 1.4                    | 1.4                    |
|   | 30 17<br>30 17<br>30 17<br>30 17<br>30 17<br>30 17                                                                             | 000                                 | 000                  |                                  | , i                    | ع بر ه               | , p. p.              | ₩ <b>-</b>           | <u> </u>             | 9 =                  | 111                  | 11                   | , _, _               | 900                  | . w                  | 99                   | 17                   | 917                  | 13                   | 17                    | 17                   | 17                   | 17                   | 17                            | 12<br>17             | 9 9                  | 17<br>17             | 14<br>17               | 10<br>10             | 17<br>17               | 17                   | 17<br>17               | 17<br>12               |
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|   | 17310                                                                                                                          | ပေးထပော                             | თ თ ⊢                | - Un ∞                           | 4 0                    | ספי                  | o on oc              | ωĸ                   | 000                  | `                    | 101~                 | ιωυ                  | пω                   |                      |                      | 0                    | n                    | . 0                  | , ,                  | 7                     | , (1, 0              | 1 0                  |                      | , = 0                         |                      |                      |                      | •                      |                      |                        |                      |                        |                        |
|   |                                                                                                                                |                                     |                      |                                  |                        |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                       |                      |                      |                      |                               |                      |                      |                      |                        |                      |                        |                      |                        |                        |
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|   | 10 1M0498 31. 1M0560 33. 2M0035 37 2M0065 51 2M0099                                                                            | 15 1M0281<br>18 1M0317<br>55 1M0323 | 26 1M0274            | 58 1M0149<br>)5 1M0152           | 74 1M0040<br>30 1M0045 | 57 T. bru            | 6 1M0344             | 3 1M0080             | 8 Arabid             | AL63820              | 5 1M0203             | 3 1M0560             | 3 2M0048             | AU10473              | AU10395              | AU10258              | 2 Arabid             | AL63024              | 1 1M0400             | 7 2M0047              | 6 1M0062             | 9 1M0474             | 4 1M03111            | 4 2M00540                     | 8 2M01031            | we63c12              | 1 1M04091            | yb41a05.1<br>8 2M01021 | 6 AV67403            | 8 1M0532H              | wc69g04.             | 1 1M05700<br>3 1M0526N | 5 1M01290<br>5 6015647 |
|   | 0006<br>0006<br>0000<br>0000<br>0000<br>0000<br>0000<br>000                                                                    | D22<br>H13<br>J14                   | J04<br>D04           | P01                              | N05                    | Cei                  | KO8                  | EO5                  | ops<br>ops           | · + ¢                | C23                  | E18                  | N18                  | <b>ω</b> ω (         | <i></i>              | 2 1 0                | ops<br>ops           | 5 -                  | NO4                  | E24                   | N12                  | 113                  | H13                  | 010                           | 090                  | , w.×                | 23                   | 202                    | 4.6                  | 111                    | 311 × 6              | 001                    | 03<br>66               |
|   | <u></u>                                                                                                                        |                                     |                      |                                  |                        |                      | _                    |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                       |                      | _                    |                      |                               |                      |                      |                      |                        |                      |                        |                      |                        |                        |
|   | c 221<br>222<br>c 223<br>224<br>225                                                                                            | c 219<br>c 219<br>c 220             | c 216<br>217         | c 213<br>c 214<br>c 215          | 211<br>212             | 209<br>210           | c 207                | c 205                | c 203                | c 201                | 199                  | c 197                | c 195                | c 193<br>194         | c 191                | c 189                | c 187                |                      | c 183                |                       | c 179                |                      | c 175                | 173                           | c 171                |                      |                      | C 165                  |                      |                        |                      | c 155<br>c 156         |                        |
|   | 20.4<br>20.4<br>20.4<br>20.4<br>20.4                                                                                           | 20.4                                | 20.4                 | 20.4                             | 20.4                   | 20.4                 | 20.4                 | 20.4                 | 20.4                 | 20.4                 | 20.4                 | 20.4                 | 20.4                 | 20.4                 | 20.4                 | 20.4                 | 20.4                 | 20.4                 | 20.4                 | 20.4                  | 20.4                 | 20.4                 | 20.4                 | 20.4                          | 20.4                 | 20.4                 | 20.4                 | 20.4                   | 20.4                 | 20.4                   | 20.4                 | 20.4                   | 20.4                   |
|   |                                                                                                                                | 11.                                 |                      | <br>                             | 1.3                    | 1.3<br>1.3           |                      | - μ :<br>. ω :       | ישי ע<br>ט שי עי     | - <u>-</u> -         | - 1- 1<br>- W        | . u<br>. u           | 1.3                  | 11.<br>33            | μμ,<br>ωω            | !<br>ω ω             | μμ,<br>ωω            | <br>                 | <br>                 | - μ :<br>             | . μ ;<br>ω ω i       | - <del>-</del> - :   | . u c                | - 1- 1<br>                    | - μ μ<br>ω ω υ       | <br>                 | ω ω t                | ມພ<br>                 | <br>                 | יייי<br>ייייי<br>ייייי |                      | <br>                   | 11.                    |
|   | 2 2 2 2 2 3 3<br>6 5 5 5 5 5                                                                                                   | . w w u                             | ာ ယ ယ (<br>n ဟ ဟ (   | <u> </u>                         | . ω ω<br>1 σ σ         | 34                   | 334                  | υ<br>4.4             | ωω<br>4.4.           | ωω<br>4.4            | ယ္ကယ္မ               | ມພ                   | ພູພ<br>ພູພ           | ယ္ဆယ္ဆ               | ယ္ကယ္                | ယ ယ                  | ယ္ထယ္မ               | 2 2 E                | υ ω ι<br>1 Ο ¢       | υ ω ι<br>2 <b>2</b> C | υω<br>1000           | 32                   | υως<br>100           | ωω<br>1 Ο C                   | ω ω μ<br>- μ         | υ ω <u>υ</u>         | υ ω ι<br>- μ -       | <u>υ</u> ω μ           | υ ω c                | υ ω ω<br>              | 31                   | 30<br>31               | 30                     |
|   | 17<br>17<br>17<br>17<br>17                                                                                                     | 17                                  | 17                   | 17                               | 9<br>17                | 17<br>17             | 17<br>17             | 17<br>17             | 17                   | 17                   | 17<br>17             | 17<br>17             | 17<br>17             | 17<br>17             | 17                   | 17<br>17             | 17<br>17             | 17                   | 17                   | 17                    | 17                   | 17<br>17             | 17                   | 17                            | 17                   | 17                   | 17                   | 17                     | 17                   | 17                     | 17                   | 17                     | 17<br>17               |
|   | AZ858898<br>AZ967442<br>AZ969917<br>AL752534<br>AZ337595                                                                       | AZ817073<br>AZ831930                | AZ764499<br>AZ764535 | AZ3ZIII5<br>AZ609583<br>AZ636745 | AL632985<br>AZ317100   | AZ861717<br>AZ966622 | AZ758966<br>AZ830800 | AZ625604             | AZ375570<br>AZ465197 | AZ321635<br>AZ345707 | AL752290<br>DR6D19T  | AZ825930             | AZ764525<br>AZ781169 | AZ580860<br>AZ627977 | AZ486747<br>AZ486748 | AZ446945<br>AZ463030 | AZ375611<br>AZ375613 | AZ949206             | AZ844990<br>AZ861620 | AZ815555              | AZ628915<br>AZ764538 | AZ590275<br>AZ626073 | AZ447211<br>AZ465442 | AZ339938                      | AZ839201<br>AZ860356 | AZ817368             | AZ777026             | AZ764376               | AZ638670             | AZ423/49<br>AZ500410   | AZ345491<br>AZ375236 | AZ942781<br>AZ325963   | AZ845409<br>AZ861881   |
|   |                                                                                                                                |                                     |                      |                                  |                        |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                       |                      |                      |                      |                               |                      |                      |                      |                        |                      |                        |                      |                        |                        |
|   |                                                                                                                                |                                     |                      |                                  | ***                    |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                      |                       |                      |                      |                      | <b>.</b>                      |                      |                      |                      | n. n                   |                      |                        |                      |                        | , ,                    |
|   | AZ967442<br>AZ967447<br>AZ969917<br>AL752534 <i>I</i><br>AZ337595 1                                                            | AZ817073<br>AZ831930                | A2764499<br>A2764535 | AZ609583<br>AZ636745             | AZ317100               | AZ861717<br>AZ966622 | AZ758966<br>AZ830800 | AZ625604<br>AZ650496 | AZ375570<br>AZ465197 | A2321635<br>A2345707 | AL752290<br>AL743912 | AZ825930<br>AZ964682 | A2764525<br>A2781169 | AZ580860<br>AZ627977 | AZ486747<br>AZ486748 | AZ446945<br>AZ463030 | AZ375611<br>AZ375613 | AZ949206<br>AZ333205 | AZ844990<br>AZ861620 | AZ815555<br>AZ836103  | AZ628915<br>AZ764538 | AZ590275<br>AZ626073 | AZ447211<br>AZ465442 | AZ339938<br>AZ368233          | AZ839201<br>AZ860356 | AZ817368             | AZ777026             | 12764376<br>12769451   | 12638670             | 12500410               | AZ345491<br>AZ375236 | 1Z325963               | \Z845409<br>\Z861881   |
|   | 2 2 2 M 0 2 3 8 F 2 0<br>7 2 M 0 2 3 8 F 2 0<br>7 2 M 0 2 4 2 D 2 0<br>4 Arabidops<br>5 1 M 0 0 6 8 0 1 7                      | 2M0086E                             | 1M0560K              | 1M0434L<br>1M0495F               | AL632985<br>1M0035E    | 2M0168A              | 1M0551A<br>2M0110D   | 1M0465D              | 1M0129B              | 1M0042I<br>1M0080H   | Arabido<br>Danio r   | 2M0101E              | 1M0560H              | 1M0369K              | 1M0315B              | 1M02430<br>1M0271D   | 1M0129N              | 2M0212M0             | 2M01440              | 2M0083F:              | 1M0481H              | 1M0399J:             | 1M0244M0             | 1M0071F1                      | 2M0135A:<br>2M0166M1 | 2M0086L2             | 2M00111(             | 1M0560K1               | 1M0498M(<br>1M0549F1 | 1M0338F1               | 1M0080E(             | 2M0203P(<br>1M0048M2   | 2M0145NJ<br>2M0168J1   |
|   | 120<br>120<br>117                                                                                                              | 227                                 | 220                  | 13                               | 01                     | 23<br>11             | 18                   | 16                   | 23                   | 15<br>02             | ar<br>Sd             | 01                   | 17<br>08             | 17<br>03             | 200                  | 09                   | ິດວິ                 | 2<br>8               | 23                   | <u>~</u> ≈            | 21                   | )7                   | ວິ<br>ວິ             | <u>ω</u> []                   | ڇَ ω                 | 2 2                  | ŏ ŏ                  | <b>√</b> ω'            | 77                   | 001                    | . ನ <b>ದ</b>         | 664                    | 70                     |

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| 17 AZ853281<br>17 AZ852914<br>17 AZ825914<br>17 AZ825914<br>17 AZ852082<br>17 AZ65006<br>17 AZ65006<br>17 AZ650208<br>17 AZ65208<br>17 AZ65208<br>17 AZ65158<br>17 AZ65158<br>17 AZ65168<br>17 AZ65644<br>17 AZ65644<br>17 AZ656675<br>17 AZ73388<br>17 AZ73388<br>17 AZ73488<br>17 AZ764533<br>17 AZ764533<br>17 AZ764533<br>17 AZ76453<br>17 AZ76592<br>18 AU102941<br>19 AU102941<br>19 AU102941<br>19 AU102941<br>19 AU102941<br>19 AU102941<br>10 AZ6609Q<br>11 AZ6609Q<br>12 AZ6609Q<br>13 BI494462<br>14 AZ6609Q<br>17 AZ7659<br>17 AZ7659<br>18 AU102941<br>19 AU102941<br>10 AU102941<br>11 AZ861629<br>12 AU102941<br>13 BI491464<br>14 AZ861629<br>17 AZ6609Q<br>17 AZ6609<br>17 AZ6609<br>18 AZ6609 |
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| 4444444333<br>44444337<br>4444337                                                                                                                                                                                                                                                                                                                                                                                                                        | 427<br>428<br>429<br>430<br>431                                                                                                                                                                                                                                         | 422<br>423<br>424<br>425<br>426                                                                                                                                                       | 418<br>419<br>420<br>421                                                                                                                                                        | 414<br>415<br>416                                                                                                                          | 410<br>411<br>411<br>412                                                                                                                                                    | 405<br>406<br>407<br>408                                                                                                                                             | 401<br>402<br>403<br>404                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 398<br>399<br>400                                                                                                                        | 498<br>495<br>400<br>700                                                                              | 391<br>392<br>393                                                                                       | 388                                                                                                                        | 385<br>386                                                                                                    | 382<br>383                                                                                                   | 378<br>379<br>380                                                                                           | 375<br>376<br>377                                                                                                                            | 372<br>373<br>374                                                                                              |
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| A11623465 A0102468 A0102922 A0102943 A0104769 A0105396 A0105396 A0107937 A0107937 A0107937 A01762342 A176237665                                                                                                                                                                                                                                                                                                                                          | V833442<br>F383813<br>A43G04P<br>655018<br>936385                                                                                                                                                                                                                       | 2764530<br>2809474<br>2404047<br>J000542<br>2844480                                                                                                                                   | Z456387<br>Z800982<br>Z823372<br>Z441480                                                                                                                                        | Z491476<br>Z764508<br>Z808168<br>Z808168                                                                                                   | 2361996<br>2369495<br>2390129<br>2458872                                                                                                                                    | 1080/5<br>108076<br>108077<br>1416593                                                                                                                                | 108069<br>108070<br>108072<br>108074                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 107644<br>108067<br>108068                                                                                                               | 103932<br>104069<br>107430                                                                            | 11377<br>14070<br>103951                                                                                | 5662785<br>5966348<br>687986                                                                                               | 04802<br>06878<br>604431                                                                                      | 04791<br>04798<br>04800                                                                                      | 04786                                                                                                       | 99365<br>381877<br>95742                                                                                                                     | 987023<br>546340<br>:888835                                                                                    |
| A10                                                                                                                                                                                                                                                                                                                                                                                                                  | A<br>A<br>A<br>A<br>A                                                                                                                                                                                                                                                   | <b>ל</b> כ כ מ כ                                                                                                                                                                      | ******                                                                                                                                                                          | A A A A                                                                                                                                    | <b>&gt;&gt;</b> >>                                                                                                                                                          | AU<br>AU<br>B<br>B<br>A                                                                                                                                              | AU<br>AU<br>AU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | AU<br>AU<br>AU                                                                                                                           | AU<br>AU                                                                                              | AU<br>AU                                                                                                | B A A                                                                                                                      | AU:<br>AU:<br>AI:                                                                                             | AUI<br>AUI<br>AUI                                                                                            | AU1<br>AU1                                                                                                  | AA3                                                                                                                                          | A2<br>B1<br>B1                                                                                                 |
| A2495/24 A1623465 A2 A1102468 A2 A1102922 A2 A1102947 A2 A1102932 A2 A1102933 A2 A1105396 A2 A1107937 A2 A17762378 W2 A1762378 W2 AV673465                                                                                                                                                                                                                                                                                                               | V833442<br>F383813<br>L454722<br>655018<br>936385                                                                                                                                                                                                                       | 2764530<br>2809474<br>2404047<br>2000542<br>2844480                                                                                                                                   | Z456387<br>Z800982<br>Z823372<br>Z44148C                                                                                                                                        | 2491476<br>2764508<br>2808168<br>2979126                                                                                                   | 2361996<br>2369495<br>2390129<br>2458872                                                                                                                                    | 108076<br>108076<br>108077<br>1416593                                                                                                                                | 108070<br>108072<br>108074                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 107644<br>108067<br>108068                                                                                                               | 104069 .<br>107430 .<br>107431 .                                                                      | 14070 y                                                                                                 | 2662785<br>2966348<br>1687986                                                                                              | L04802 ;<br>L06878 ;<br>2604431                                                                               | 04791 /<br>104798 /<br>104800 /                                                                              | 04786 1                                                                                                     | 199365<br>1381877<br>195742 1                                                                                                                | 987023<br>546340<br>1888835                                                                                    |
| 165 Eslagos x<br>168 AUI02468<br>22 AUI0292<br>24 AUI0292<br>24 AUI04769<br>369 AUI04769<br>393 AUI05396<br>393 AUI07494<br>394 AUI07937<br>397 AUI07937<br>397 AUI07937<br>398 Wii4fI0.x<br>398 Wii4fI0.x                                                                                                                                                                                                                                               | AV833<br>60204<br>T. br<br>wb66b0<br>od49g0                                                                                                                                                                                                                             | 1M017<br>1M017<br>1M017<br>2M014                                                                                                                                                      | 1M025<br>2M005<br>2M009<br>1M023                                                                                                                                                | 1M0325<br>1M056<br>2M0071<br>2M0255                                                                                                        | 1M0106<br>1M0120<br>1M0151<br>1M0263                                                                                                                                        | AU10807<br>AU10807<br>AU10807<br>hasp00                                                                                                                              | AU10807<br>AU10807<br>AU10807                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | AU10764<br>AU10806<br>AU10806                                                                                                            | AU10406<br>AU10743<br>AU10743                                                                         | 930f05.<br>930f05.<br>AU10395                                                                           | 1M0542<br>2M0236<br>603315                                                                                                 | AU10480<br>AU10687<br>1M0425                                                                                  | AU10479<br>AU10479<br>AU10480                                                                                | 1010478<br>1010478<br>1010478                                                                               | 2t50d07<br>1M0138<br>1L59574                                                                                                                 | 2M0269<br>603188<br>3526_1                                                                                     |
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| 506 18.8 1<br>507 18.8 1<br>509 18.8 1<br>510 18.8 1<br>511 18.8 1<br>513 18.8 1<br>513 18.8 1<br>514 18.8 1<br>515 18.8 1<br>516 18.8 1                                                                                                                                                                                                                                                                                                                 | 500 18.8 1.2<br>501 18.8 1.2<br>502 18.8 1.2<br>503 18.8 1.2<br>504 18.8 1.2                                                                                                                                                                                            | 496 18.8 1.2<br>496 18.8 1.2<br>497 18.8 1.2<br>498 18.8 1.2                                                                                                                          | 491 19 1.2<br>492 19 1.2<br>493 19 1.2<br>494 18.8 1.2                                                                                                                          | 487 19 1.2<br>488 19 1.2<br>489 19 1.2<br>490 19 1.2                                                                                       | 483 19 1.2<br>484 19 1.2<br>485 19 1.2<br>486 19 1.2                                                                                                                        | 479 19 1.2<br>480 19 1.2<br>481 19 1.2<br>482 19 1.2                                                                                                                 | 475 19 1.2<br>476 19 1.2<br>477 19 1.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 471 19 1.2<br>472 19 1.2<br>472 19 1.2<br>474 19 1.2                                                                                     | 468 19 1.2<br>469 19 1.2<br>470 19 1.2                                                                | 465 19 1.2<br>467 19 1.2                                                                                | 461 19 1.2<br>462 19 1.2<br>463 19 1.2                                                                                     | 458 19.2 1.2<br>459 19.2 1.2<br>460 19.2 1.2                                                                  | 455 19.2 1.2<br>456 19.2 1.2<br>457 19.2 1.2                                                                 | 19.2 1.2<br>19.2 1.2                                                                                        | 448 19.2 1.2<br>449 19.2 1.2<br>450 19.2 1.2<br>451 19.2 1.2                                                                                 | 445 19.2 1.2 3<br>446 19.2 1.2 4<br>447 19.2 1.2 4                                                             |
| 506 18.8 1.2 35 1<br>507 18.8 1.2 35 1<br>509 18.8 1.2 35 1<br>509 18.8 1.2 38 1<br>510 18.8 1.2 38 1<br>511 18.8 1.2 40 1<br>512 18.8 1.2 43 9<br>513 18.8 1.2 47 1<br>514 18.8 1.2 47 1<br>515 18.8 1.2 47 1<br>516 18.8 1.2 47 1<br>517 18.8 1.2 47 1<br>518 18.8 1.2 47 1<br>518 18.8 1.2 47 1                                                                                                                                                       | 500 18.8 1.2 32 1<br>501 18.8 1.2 32 1<br>502 18.8 1.2 32 1<br>503 18.8 1.2 33 1<br>504 18.8 1.2 33 1<br>504 18.8 1.2 34 1                                                                                                                                              | 496 18.8 1.2 30 1<br>497 18.8 1.2 30 1<br>498 18.8 1.2 31 1<br>499 18.8 1.2 31 1<br>499 18.8 1.2 31 1                                                                                 | 491 19 1.2 50 1<br>492 19 1.2 50 1<br>492 19 1.2 50 1<br>493 18 8 1.2 30 1                                                                                                      | 487 19 1.2 50 9<br>488 19 1.2 50 9<br>489 19 1.2 50 9<br>490 19 1.2 50 9                                                                   | 483 19 1.2 50 9<br>484 19 1.2 50 9<br>485 19 1.2 50 9<br>486 19 1.2 50 9                                                                                                    | 479 19 1.2 50 9<br>480 19 1.2 50 9<br>481 19 1.2 50 9<br>482 19 1.2 50 9                                                                                             | 475 19 1.2 48 1.<br>476 19 1.2 49 9<br>477 19 1.2 49 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 471 19 1.2 40 9<br>472 1.2 44 1.<br>472 19 1.2 45 1.<br>473 19 1.2 45 1.                                                                 | 468 19 1.2 36 17<br>469 19 1.2 36 17<br>470 19 1.2 39 17                                              | 465 19 1.2 29 17<br>465 19 1.2 29 17<br>467 19 1.2 36 12                                                | 461 19 1.2 27 17<br>462 19 1.2 27 17<br>463 19 1.2 28 17                                                                   | 458 19.2 1.2 50 9<br>459 19.2 1.2 50 9<br>460 19.2 1.2 50 9                                                   | 455 19.2 1.2 50 9<br>456 19.2 1.2 50 9<br>457 19.2 1.2 50 9                                                  | 19.2 1.2 50 9<br>13 19.2 1.2 50 9<br>14 19.2 1.2 50 9                                                       | 448 19.2 1.2 40 19<br>449 19.2 1.2 50 9<br>450 19.2 1.2 50 9<br>451 19.2 1.2 50 9                                                            | 445 19.2 1.2 39 17<br>446 19.2 1.2 43 13<br>447 19.2 1.2 44 13                                                 |
| 506 18.8 1.2 35<br>507 18.8 1.2 35<br>508 18.8 1.2 35<br>509 18.8 1.2 38<br>510 18.8 1.2 38<br>511 18.8 1.2 40<br>512 18.8 1.2 43<br>513 18.8 1.2 43<br>514 18.8 1.2 43<br>515 18.8 1.2 43<br>516 18.8 1.2 44<br>517 18.8 1.2 44<br>518 18.8 1.2 44<br>519 516 18.8 1.2 44<br>510 18.8 1.2 44<br>511 18.8 1.2 44<br>511 18.8 1.2 44<br>512 18.8 1.2 44<br>513 18.8 1.2 44<br>514 18.8 1.2 44<br>515 18.8 1.2 44<br>516 18.8 1.2 44<br>517 18.8 1.2 44    | 500 18.8 1.2 32 1<br>501 18.8 1.2 32 1<br>502 18.8 1.2 32 1<br>503 18.8 1.2 33 1<br>504 18.8 1.2 33 1<br>504 18.8 1.2 34 1                                                                                                                                              | 496 18.8 1.2 30 1<br>497 18.8 1.2 30 1<br>498 18.8 1.2 31 1<br>499 18.8 1.2 31 1<br>499 18.8 1.2 31 1                                                                                 | 491 19 1.2 50 1<br>492 19 1.2 50 1<br>492 19 1.2 50 1<br>493 18 8 1.2 30 1                                                                                                      | 487 19 1.2 50 9<br>488 19 1.2 50 9<br>489 19 1.2 50 9<br>490 19 1.2 50 9                                                                   | 483 19 1.2 50 9<br>484 19 1.2 50 9<br>485 19 1.2 50 9<br>486 19 1.2 50 9                                                                                                    | 479 19 1.2 50 9<br>480 19 1.2 50 9<br>481 19 1.2 50 9<br>482 19 1.2 50 9                                                                                             | 475 19 1.2 48 1.<br>476 19 1.2 49 9<br>477 19 1.2 49 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 471 19 1.2 40 9<br>472 1.2 44 1.<br>472 19 1.2 45 1.<br>473 19 1.2 45 1.                                                                 | 468 19 1.2 36 17<br>469 19 1.2 36 17<br>470 19 1.2 39 17                                              | 465 19 1.2 29 17<br>465 19 1.2 29 17<br>467 19 1.2 36 12                                                | 461 19 1.2 27 17<br>462 19 1.2 27 17<br>463 19 1.2 28 17                                                                   | 458 19.2 1.2 50 9<br>459 19.2 1.2 50 9<br>460 19.2 1.2 50 9                                                   | 455 19.2 1.2 50 9<br>456 19.2 1.2 50 9<br>457 19.2 1.2 50 9                                                  | 19.2 1.2 50 9<br>13 19.2 1.2 50 9<br>14 19.2 1.2 50 9                                                       | 448 19.2 1.2 40 19<br>449 19.2 1.2 50 9<br>450 19.2 1.2 50 9<br>451 19.2 1.2 50 9                                                            | 445 19.2 1.2 39 17<br>446 19.2 1.2 43 13<br>447 19.2 1.2 44 13                                                 |
| 506 18.8 1.2 35 1<br>507 18.8 1.2 35 1<br>509 18.8 1.2 35 1<br>509 18.8 1.2 38 1<br>510 18.8 1.2 38 1<br>511 18.8 1.2 40 1<br>512 18.8 1.2 43 9<br>513 18.8 1.2 47 1<br>514 18.8 1.2 47 1<br>515 18.8 1.2 47 1<br>516 18.8 1.2 47 1<br>517 18.8 1.2 47 1<br>518 18.8 1.2 47 1<br>518 18.8 1.2 47 1                                                                                                                                                       | 500 18.8 1.2 32 1<br>501 18.8 1.2 32 1<br>502 18.8 1.2 32 1<br>503 18.8 1.2 33 1<br>504 18.8 1.2 33 1<br>504 18.8 1.2 34 1                                                                                                                                              | 496 18.8 1.2 30 1<br>497 18.8 1.2 30 1<br>498 18.8 1.2 31 1<br>499 18.8 1.2 31 1<br>499 18.8 1.2 31 1                                                                                 | 491 19 1.2 50 1<br>492 19 1.2 50 1<br>492 19 1.2 50 1<br>493 18 8 1.2 30 1                                                                                                      | 487 19 1.2 50 9<br>488 19 1.2 50 9<br>489 19 1.2 50 9<br>490 19 1.2 50 9                                                                   | 483 19 1.2 50 9<br>484 19 1.2 50 9<br>485 19 1.2 50 9<br>486 19 1.2 50 9                                                                                                    | 479 19 1.2 50 9<br>480 19 1.2 50 9<br>481 19 1.2 50 9<br>482 19 1.2 50 9                                                                                             | 475 19 1.2 48 1.<br>476 19 1.2 49 9<br>477 19 1.2 49 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 471 19 1.2 40 9<br>472 1.2 44 1.<br>472 19 1.2 45 1.<br>473 19 1.2 45 1.                                                                 | 468 19 1.2 36 17<br>469 19 1.2 36 17<br>470 19 1.2 39 17                                              | 465 19 1.2 29 17<br>465 19 1.2 29 17<br>467 19 1.2 36 12                                                | 461 19 1.2 27 17<br>462 19 1.2 27 17<br>463 19 1.2 28 17                                                                   | 458 19.2 1.2 50 9<br>459 19.2 1.2 50 9<br>460 19.2 1.2 50 9                                                   | 455 19.2 1.2 50 9<br>456 19.2 1.2 50 9<br>457 19.2 1.2 50 9                                                  | 19.2 1.2 50 9<br>13 19.2 1.2 50 9<br>14 19.2 1.2 50 9                                                       | 448 19.2 1.2 40 19<br>449 19.2 1.2 50 9<br>450 19.2 1.2 50 9<br>451 19.2 1.2 50 9                                                            | 445 19.2 1.2 39 17<br>446 19.2 1.2 43 13<br>447 19.2 1.2 44 13                                                 |
| 506 18.8 1.2 35 10 AV966847 507 18.8 1.2 35 17 AZ8070717 508 18.8 1.2 35 17 AZ807077 509 18.8 1.2 35 17 AZ807007 509 18.8 1.2 38 13 BJ000158 510 18.8 1.2 40 12 BG772038 511 18.8 1.2 40 12 BG772038 512 18.8 1.2 43 9 AI975692 513 18.8 1.2 44 17 AZ506222 514 18.8 1.2 47 17 BH808765 515 18.8 1.2 47 17 BH808765 516 18.8 1.2 47 17 BH808765 517 18.8 1.2 49 9 AA902962                                                                               | 500 18.8 1.2 32 17 AZ/302390<br>501 18.8 1.2 32 17 AZ971404<br>502 18.8 1.2 32 17 DR9H23S<br>503 18.8 1.2 33 17 AZ579580<br>504 18.8 1.2 33 17 AZ62690<br>506 18 8 1.2 33 17 AZ62690                                                                                    | 496 18.8 1.2 30 17 AZ864315<br>497 18.8 1.2 30 17 TAZ8A09P<br>498 18.8 1.2 31 17 AZ761993<br>499 18.8 1.2 31 17 AZ761993                                                              | 491 19 1.2 50 13 B1416671<br>492 19 1.2 50 17 A276790<br>493 19 1.2 50 17 A2936918<br>494 18.8 1.2 30 17 A2530045<br>494 18.8 1.2 30 17 A2530045                                | 487 19 1.2 50 9 AUJUS189<br>488 19 1.2 50 9 AUJUS167<br>489 19 1.2 50 9 AUJUS167<br>489 19 1.2 50 9 AUJUS17989<br>490 19 1.2 50 9 AUJUS189 | 483 19 1.2 50 9 AUIO3111<br>484 19 1.2 50 9 AUIO3122<br>485 19 1.2 50 9 AUIO3132<br>486 19 1.2 50 9 AUIO3136                                                                | 479 19 1.2 50 9 AU102567<br>480 19 1.2 50 9 AU102568<br>481 19 1.2 50 9 AU102571<br>482 19 1.2 50 9 AU103109                                                         | 475 19 1.2 48 13 BI456900<br>476 19 1.2 49 9A775622<br>477 19 1.2 49 17 PARTS 19 1.2 49 17 TASS 19 17 PARTS | 471 19 1.2 40 9 AT084727<br>472 19 1.2 44 12 BE979583<br>473 19 1.2 45 17 AZ833436<br>474 19 1 2 48 13 BI456893                          | 468 19 1.2 36 17 AZ387862<br>469 19 1.2 36 17 AZ664037<br>470 19 1.2 39 17 AZ846088                   | 465 19 1.2 29 17 AZ423751<br>466 19 1.2 29 17 AZ662726<br>467 19 1.2 29 17 AZ662726                     | 461 19 1.2 2/ 1/ A2004434<br>462 19 1.2 27 17 A2649949<br>463 19 1.2 28 17 A2640161<br>464 19 1 2 28 17 A2806290           | 458 19.2 1.2 50 9 A0106870<br>459 19.2 1.2 50 9 A0106941<br>460 19.2 1.2 50 9 A0107725                        | 455 19.2 1.2 50 9 AU104799<br>456 19.2 1.2 50 9 AU104803<br>457 19.2 1.2 50 9 AU105180                       | 52 19.2 1.2 50 9 AU104794<br>53 19.2 1.2 50 9 AU104796<br>54 19.2 1.2 50 9 AU104797                         | 448 19.2 1.2 40 13 E1403002<br>449 19.2 1.2 50 9 AU102333<br>450 19.2 1.2 50 9 AU104789<br>451 19.2 1.2 50 9 AU104790                        | 445 19.2 1.2 39 17 AZ804350<br>446 19.2 1.2 43 13 BI103457<br>447 19.2 1.2 44 13 BJ001599                      |
| 506 18.8 1.2 35 10 AV966847 A2806<br>507 18.8 1.2 35 17 A2807171 A2805<br>508 18.8 1.2 35 17 A2807171 A2805<br>509 18.8 1.2 35 17 A2801607 BJ000<br>510 18.8 1.2 38 13 BJ000158 AL763<br>511 18.8 1.2 40 12 BG772038 AL763<br>512 18.8 1.2 40 12 BG772038 A19736<br>513 18.8 1.2 43 9 A1973692 A2793<br>514 18.8 1.2 47 17 A2797405 BH800<br>515 18.8 1.2 47 17 BH808765 BH800<br>516 18.8 1.2 47 17 BH808765 BH800<br>517 18.8 1.2 49 9 AA948394 AA9484 | 500 18.8 1.2 32 17 A2/30290 A2/37<br>501 18.8 1.2 32 17 A2/371404 AZ/371404<br>502 18.8 1.2 32 17 DR9H23S AL743<br>503 18.8 1.2 33 17 AZ/379580 AZ/37<br>504 18.8 1.2 33 17 AZ/379580 AZ/37<br>504 18.8 1.2 33 17 AZ/379580 AZ/37<br>506 18.8 1.2 33 17 AZ/379480 AZ/37 | 496 18.8 1.2 30 17 AZ864315 AZ864<br>497 18.8 1.2 30 17 TA28A09P AL454<br>497 18.8 1.2 31 17 AZ761993 AL752<br>498 18.8 1.2 31 17 AZ751993 AL752<br>499 18.8 1.2 31 17 AL752303 AL752 | 491 19 1.2 50 13 B14105/1 B1410<br>492 19 1.2 50 17 A2776790 AZ776<br>493 19 1.2 50 17 AZ936918 AZ936<br>493 18.8 1.2 30 17 AZ653045 AZ650<br>494 18.8 1.2 30 17 AZ653044 AZ653 | 487 19 1.2 50 9 AU103689 AU10364<br>488 19 1.2 50 9 AU105167 AU1051<br>489 19 1.2 50 9 AU106473 AU1064<br>489 19 1.2 50 9 AU107989 AU1079  | 483 19 1.2 50 9 AU103111 AU1031<br>484 19 1.2 50 9 AU103122 AU1031<br>485 19 1.2 50 9 AU103132 AU1031<br>486 19 1.2 50 9 AU103136 AU1031<br>486 19 1.2 50 9 AU103136 AU1031 | 479 19 1.2 50 9 AU102567 AU1025<br>480 19 1.2 50 9 AU102568 AU1025<br>481 19 1.2 50 9 AU102571 AU1025<br>482 19 1.2 50 9 AU102571 AU1025<br>482 19 1.2 50 9 AU103109 | 475 19 1.2 48 13 BI456900 BI456<br>476 19 1.2 49 9 AA775622 AA77756<br>477 19 1.2 49 9 TIASABBUAP ALA98<br>477 19 1.2 49 1 TIASABBUAP ALA98                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 471 19 1.2 40 9 AI088727 A10987<br>472 19 1.2 44 12 BE979583 BE979<br>473 19 1.2 45 17 AZ833436 AZ833<br>473 19 1.2 45 13 BI456993 BI456 | 468 19 1.2 36 17 AZ387862 AZ387<br>469 19 1.2 36 17 AZ664037 AZ664<br>470 19 1.2 39 17 AZ846058 AZ664 | 465 19 1.2 29 17 AZ423751 AZ4237<br>466 19 1.2 29 17 AZ662726 AZ6627<br>467 19 1.2 36 12 BG821619 BG821 | 461 19 1.2 2/ 1/ AZGU4434 462 19 1.2 27 17 AZG40949 AZG499 463 19 1.2 28 17 AZG40161 AZG40 464 10 1 2 28 17 AZB06290 AZB06 | 458 19.2 1.2 50 9 AU106870 AU1008<br>459 19.2 1.2 50 9 AU106941 AU1069<br>460 19.2 1.2 50 9 AU107725 AU107725 | 455 19.2 1.2 50 9 AU104799 AU10474<br>456 19.2 1.2 50 9 AU104803 AU1048<br>457 19.2 1.2 50 9 AU105180 AU1051 | 52 19.2 1.2 50 9 AU104794 AU10479<br>53 19.2 1.2 50 9 AU104796 AU10479<br>54 19.2 1.2 50 9 AU104797 AU10479 | 448 19.2 1.2 40 13 E140002<br>449 19.2 1.2 50 9 AU102333 AU10233<br>450 19.2 1.2 50 9 AU104789 AU10479<br>451 19.2 1.2 50 9 AU104790 AU10479 | 445 19.2 1.2 39 17 AZ804350 AZ804.<br>446 19.2 1.2 43 13 BI103457 BI1034<br>447 19.2 1.2 44 13 BJ001599 BJ0011 |
| 506 18.8 1.2 35 1<br>507 18.8 1.2 35 1<br>509 18.8 1.2 35 1<br>509 18.8 1.2 38 1<br>510 18.8 1.2 38 1<br>511 18.8 1.2 40 1<br>512 18.8 1.2 43 9<br>513 18.8 1.2 47 1<br>514 18.8 1.2 47 1<br>515 18.8 1.2 47 1<br>516 18.8 1.2 47 1<br>517 18.8 1.2 47 1<br>518 18.8 1.2 47 1<br>518 18.8 1.2 47 1                                                                                                                                                       | 500 18.8 1.2 32 17 A2/30290 A2/37<br>501 18.8 1.2 32 17 A2/371404 AZ/371404<br>502 18.8 1.2 32 17 DR9H23S AL743<br>503 18.8 1.2 33 17 AZ/379580 AZ/37<br>504 18.8 1.2 33 17 AZ/379580 AZ/37<br>504 18.8 1.2 33 17 AZ/379580 AZ/37<br>506 18.8 1.2 33 17 AZ/379480 AZ/37 | 496 18.8 1.2 30 17 AZ864315 AZ864<br>497 18.8 1.2 30 17 TA28A09P AL454<br>497 18.8 1.2 31 17 AZ761993 AL752<br>498 18.8 1.2 31 17 AZ751993 AL752<br>499 18.8 1.2 31 17 AL752303 AL752 | 491 19 1.2 50 13 B14105/1 B1410<br>492 19 1.2 50 17 A2776790 AZ776<br>493 19 1.2 50 17 AZ936918 AZ936<br>493 18.8 1.2 30 17 AZ653045 AZ650<br>494 18.8 1.2 30 17 AZ653044 AZ653 | 487 19 1.2 50 9 AU103689 AU10364<br>488 19 1.2 50 9 AU105167 AU1051<br>489 19 1.2 50 9 AU106473 AU1064<br>489 19 1.2 50 9 AU107989 AU1079  | 483 19 1.2 50 9 AU103111 AU1031<br>484 19 1.2 50 9 AU103122 AU1031<br>485 19 1.2 50 9 AU103132 AU1031<br>486 19 1.2 50 9 AU103136 AU1031<br>486 19 1.2 50 9 AU103136 AU1031 | 479 19 1.2 50 9 AU102567 AU1025<br>480 19 1.2 50 9 AU102568 AU1025<br>481 19 1.2 50 9 AU102571 AU1025<br>482 19 1.2 50 9 AU102571 AU1025<br>482 19 1.2 50 9 AU103109 | 475 19 1.2 48 13 BI456900 BI456<br>476 19 1.2 49 9 AA775622 AA77756<br>477 19 1.2 49 9 TIASABBUAP ALA98<br>477 19 1.2 49 1 TIASABBUAP ALA98                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 471 19 1.2 40 9 AI088727 A10987<br>472 19 1.2 44 12 BE979583 BE979<br>473 19 1.2 45 17 AZ833436 AZ833<br>473 19 1.2 45 13 BI456993 BI456 | 468 19 1.2 36 17 AZ387862 AZ387<br>469 19 1.2 36 17 AZ664037 AZ664<br>470 19 1.2 39 17 AZ846058 AZ664 | 465 19 1.2 29 17 AZ423751 AZ4237<br>466 19 1.2 29 17 AZ662726 AZ6627<br>467 19 1.2 36 12 BG821619 BG821 | 461 19 1.2 2/ 1/ AZGU4434 462 19 1.2 27 17 AZG40949 AZG499 463 19 1.2 28 17 AZG40161 AZG40 464 10 1 2 28 17 AZB06290 AZB06 | 458 19.2 1.2 50 9 AU106870 AU1008<br>459 19.2 1.2 50 9 AU106941 AU1069<br>460 19.2 1.2 50 9 AU107725 AU107725 | 455 19.2 1.2 50 9 AU104799 AU10474<br>456 19.2 1.2 50 9 AU104803 AU1048<br>457 19.2 1.2 50 9 AU105180 AU1051 | 52 19.2 1.2 50 9 AU104794 AU10479<br>53 19.2 1.2 50 9 AU104796 AU10479<br>54 19.2 1.2 50 9 AU104797 AU10479 | 448 19.2 1.2 40 13 E140002<br>449 19.2 1.2 50 9 AU102333 AU10233<br>450 19.2 1.2 50 9 AU104789 AU10479<br>451 19.2 1.2 50 9 AU104790 AU10479 | 445 19.2 1.2 39 17 AZ804350 AZ804.<br>446 19.2 1.2 43 13 BI103457 BI1034<br>447 19.2 1.2 44 13 BJ001599 BJ0011 |

| c 590                      | C 585<br>C 586<br>588                                                                                      |                                                          | c 579<br>c 580                         |                                           | c 573                      |                                  |                                           | c 565<br>c 566             | c 563                            | c 560                      | 558<br>558                                |                                         | C 553                              | c 551                                    | 547<br>548               | C 545                                  |                        |                                        | c 537                     |                                         | C 533                      | 530                                       | c 528                            |                            | c 523                                               | 520<br>c 521                                                     | 518       |
|----------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------|-------------------------------------------|----------------------------|----------------------------------|-------------------------------------------|----------------------------|----------------------------------|----------------------------|-------------------------------------------|-----------------------------------------|------------------------------------|------------------------------------------|--------------------------|----------------------------------------|------------------------|----------------------------------------|---------------------------|-----------------------------------------|----------------------------|-------------------------------------------|----------------------------------|----------------------------|-----------------------------------------------------|------------------------------------------------------------------|-----------|
| 18.4                       | 18.4<br>18.4<br>18.4<br>18.4                                                                               |                                                          |                                        |                                           |                            |                                  |                                           | ~ ~ ~                      | w w u                            | Juan                       | www                                       | Jww                                     | $\omega \omega \omega$             | $\omega \omega \omega$                   | ມພື                      | 8 8 8                                  |                        | <b>co</b> co                           | ာထာထ                      | 888                                     | <b>x</b>                   | တ္ထားမ                                    | æ                                | တေထ                        | 888                                                 | യയയ                                                              | 18.8      |
|                            | 111.2                                                                                                      |                                                          |                                        |                                           |                            |                                  |                                           |                            | 1.2                              | 11.2                       | 1.2                                       | 222                                     | 11.                                | 1.2                                      | - 1                      | 1.2                                    | 1.2                    | 1.2                                    | 1.2                       | 1.2                                     | 1 H F                      | 1.2                                       | 11.                              | 1.2                        | 1.2                                                 | 1.2                                                              | 1.2       |
|                            | 28 17<br>28 17<br>28 17<br>28 17<br>28 17                                                                  |                                                          |                                        |                                           |                            |                                  |                                           |                            |                                  |                            |                                           |                                         |                                    |                                          |                          |                                        |                        |                                        |                           |                                         |                            |                                           |                                  |                            |                                                     |                                                                  |           |
|                            | AZ438922<br>AZ486749<br>AZ486762<br>AZ660134                                                               | AZ331927<br>AZ403204<br>AZ404398<br>AZ430095             | AW248122<br>BG031961<br>BE970773       | AU107036<br>AU107367<br>AU107964          | AU106756<br>AU106757       | AU106560<br>AU106646<br>AU106752 | AU104954<br>AU105397<br>AU106263          | AU104864<br>AU104865       | AU104455<br>AU104779<br>AU104837 | AU103953<br>AU103957       | AU102727<br>AU103691<br>AU103698          | AA985654<br>AU102631                    | AL660536<br>7 AZ476231<br>AA973215 | 7 BH623050<br>AA948496                   | 7 AZ937325<br>3 BI769932 | 7 AZ463268<br>3 BI659995<br>3 BJ031143 | 7 AZ759424<br>AI654394 | / AZ/76846<br>7 AZ966687<br>3 BW0/7352 | 7 AZ869302<br>AI589397    | 7 AQ073822<br>7 A2861588                | AU107236<br>AU107980       | AU105905                                  | AU104795<br>AU104936<br>AU105416 | AU102928<br>AU104049       | 7 AZ821504<br>AU102583<br>AU102926                  | 3 BM126198<br>4 H55111<br>4 U38158                               | BG97575   |
| AZ768130 11<br>AZ774078 21 | AZ438922 IM0229G18<br>AZ438922 IM0315G02<br>AZ486749 IM0315G02<br>AZ486762 IM0315002<br>AZ660134 IM0538101 | AZ331927 1<br>AZ403204 1<br>AZ404398 1<br>AZ430095 1     | AW248122 2<br>BG031961 6<br>BE970773 6 | AU107036 AU<br>AU107367 AU<br>AU107964 AU | AU106756 AU<br>AU106757 AU | AU106560 AU<br>AU106646 AU       | AU104954 AU<br>AU105397 AU<br>AU106263 AU | AU104864 AU<br>AU104865 AU | AU104455 AU<br>AU104779 AU       | AU103953 AU<br>AU103957 AU | AU102727 AU<br>AU103691 AU<br>AU103698 AU | AA985654 Or<br>AU102631 AU              | AL660536 AL<br>AZ476231 1          | A1445618 tJ<br>BH623050 1<br>AA948496 on | AZ937325 2<br>BI769932 6 | AZ463268 J<br>BI659995 6<br>BJ031143 F | AZ759424 1             | AZ776846 2<br>AZ966687 2               | AZ869302 2<br>AI589397 ti | AU108088 AU<br>AQ073822 I<br>AZ861588 3 | AU107236 AU<br>AU107980 AU | AU105416 AU<br>AU105557 AU<br>AU105905 AU | AU104795 AU<br>AU104936 AU       | AU102928 AI<br>AU104049 AI | AZ821504 :<br>AU102583 AU<br>AU102926 AU            | BM126198<br>H55111 CH<br>U38158 OSI                              | BG975755  |
| M0568A02<br>M0003C01       | M0229G18<br>M0315G02<br>M0315O02<br>M0538101                                                               | M0060G01<br>M0170G19<br>M0172L20<br>M0214-119            | 819697.5<br>02300654<br>01680129       | 107036<br>107367<br>107967                | 106756                     | 106560                           | 104954<br>105397<br>106263                | 104864                     | 1104455<br>1104779               | 103953                     | 1102727<br>1103691                        | 71c05.s<br>7102631                      | .660536<br>.M0294P14               | 108b03.x<br>1007085E0                    | M0195A02                 | LM0272B01<br>503302286<br>31031143     | 190g04.x               | 2M0010A20<br>2M0237L17                 | 2M0181C20<br>c61h11.x     | 2M0168.TO4                              | J107236<br>J107980         | 0105416<br>0105557<br>0105905             | U104795<br>U104936               | U102928<br>U104049         | 2M0094K14<br>U102583                                | if07a11.x<br>R220050 C                                           | 602845484 |
|                            | c 658<br>c 659<br>c 660                                                                                    |                                                          | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  |                                           | 0 645<br>646               |                                  | 640<br>641                                | 636                        | 500                              | 634<br>634                 | 631                                       | 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | c 620                              | c<br>6 8 2 2<br>5 8 2 2 2                | 620                      | c 61.                                  | c 61:                  | c 61:                                  | c 61                      | 60                                      | 60                         | ი<br>ი ი ი<br>ი ი                         | c 60                             | 0 0 0<br>0 0 0<br>0 0 0    | ) () ()<br>() () () () () () () () () () () () () ( | ) (<br>л (л (л (л<br>о (р (л | л<br>о    |
| 18.<br>18.                 |                                                                                                            | 18.                                                      | 18.                                    | 18.                                       | 18.                        | 18.                              | 18.<br>18.                                | 18.                        | 18                               | 18                         | 18                                        | 18<br>18                                | 18                                 | 18<br>18                                 | 18.                      |                                        | 18.                    |                                        |                           |                                         |                            | 18.<br>18.                                |                                  | 18.                        | 18.                                                 | 18.                                                              |           |
|                            | 11.22                                                                                                      |                                                          |                                        |                                           |                            |                                  |                                           |                            |                                  |                            |                                           |                                         |                                    |                                          |                          | ا بر بر د                              | <u>سر سر ت</u>         | 1.2                                    | 11.2                      | 1.2                                     | 1.2                        |                                           | <b>⊢⊢</b> ,                      |                            |                                                     |                                                                  | <u>.</u>  |
|                            | 4 4 4 4 4<br>5 5 4 4 5                                                                                     | 411                                                      |                                        | 37                                        | 2 2 2<br>2 2 1             | 50                               | 50                                        | 50<br>50                   | 50                               | 5 5 5<br>5 6 6             | 5.00                                      | <u> </u>                                | 50                                 | , 5 5<br>5 6                             | 5 5 4                    | . 4. 4.                                | 444                    | 44.                                    | 444                       | 4.4                                     | 44                         | <b>ω</b> 4- ω                             | ωωι                              |                            | 222                                                 | 0 00 00                                                          | •         |
| w 7                        |                                                                                                            |                                                          |                                        |                                           |                            |                                  |                                           |                            |                                  |                            |                                           |                                         |                                    |                                          |                          |                                        | - w                    | 0.00                                   |                           |                                         | 01 01 4                    | <b>-</b> O 0                              | ω ¬ .                            | 2 10 0                     |                                                     |                                                                  |           |
| AZ809363<br>BI651438       | 9 AI249352<br>10 BE252118<br>10 BE257268<br>10 BE255418<br>10 BE256538                                     | 13 B1756602<br>13 B1756602<br>13 B1760663<br>17 BH622284 | 9 AL//5941.<br>14 D42385<br>9 AI630923 | 9 17                                      | 17                         | 1399                             | 9 9                                       | و و و                      | 999                              | ى ى م                      | ωωι                                       | م م م                                   | 999                                | 900                                      | بوه                      | .000                                   | بوه                    | <u> </u>                               | ء ہ                       | بر بر                                   |                            | - U W                                     | 37.                              | 911                        | , <sub>–</sub> – <sub>–</sub>                       | 17 AZ861884<br>17 AZ863212                                       |           |
| AZ809363<br>BI651438       | 9 AI249352<br>10 BE252118<br>10 BE257268<br>10 BE255418<br>10 BE256538                                     | 13 B1756602<br>13 B1756663<br>13 B1760663<br>17 BH622284 | 14 D42385<br>14 D42385<br>9 AIG30923   | 9 17                                      | 17                         | 1399                             | 9 9                                       | و و و                      | 999                              | ى ى م                      | ωωι                                       | م م م                                   | 999                                | 900                                      | بوه                      | .000                                   | بوه                    | <u> </u>                               | ء ہ                       | بر بر                                   |                            | - U W                                     | 37.                              | 911                        | , <sub>–</sub> – <sub>–</sub>                       | 17 AZ853419<br>17 AZ861884<br>17 AZ863212                        |           |

| * | 728<br>729<br>730<br>731<br>732<br>733<br>734<br>735<br>C 736                                                                                                                                                                                | C 724<br>725<br>726<br>C 727                                                                                                                       | 721<br>C 722<br>C 723                                                                                                | 717<br>c 718<br>c 719                                                                                                 | c 714<br>c 715<br>c 716                                                                | c 711<br>c 712<br>c 713                                                                | c 708<br>c 709                                                                         | 705<br>0 705                                                                            | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                                   | 698<br>700                                                                |                                                                            | c 692<br>c 693<br>c 694                                                      |                                                          | c 688                                                                                 | 686<br>685<br>685                                                                          | c 682<br>683                                                                              |                                                                                           |                                                            | c 674<br>c 675                                                                          |                                                                                     | c 668<br>669                                                                    | C 6664<br>C 6666                                                                                             |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
|   | 18<br>18<br>18<br>18<br>18<br>18<br>18                                                                                                                                                                                                       | 18<br>18<br>18                                                                                                                                     | 18<br>18                                                                                                             | 18<br>18                                                                                                              | 18<br>18<br>18                                                                         | 18<br>18                                                                               | 18<br>18                                                                               | 1888                                                                                    | 1188                                                                                    | 18<br>18                                                                  | 18<br>18                                                                   | . co co                                                                      | <b>ω ω</b> α                                             | 000                                                                                   | ထထထ                                                                                        | 0000                                                                                      | 0 00 00                                                                                   | <b></b>                                                    | 0000                                                                                    |                                                                                     |                                                                                 | 18.2<br>18.2<br>18.2                                                                                         |
|   |                                                                                                                                                                                                                                              |                                                                                                                                                    |                                                                                                                      | <u>.</u>                                                                                                              | 1.1<br>1.1                                                                             | P P P !                                                                                | ;<br>;                                                                                 |                                                                                         | - <del></del>                                                                           | 1111                                                                      | 111                                                                        | 1.2<br>1.2                                                                   | 1.2<br>1.2                                               | 1.2                                                                                   | 1.2<br>1.2                                                                                 | 1.2                                                                                       | 1.2                                                                                       | 1 1 1<br>2 2 2                                             | 11.2                                                                                    | 11.2                                                                                | 11.2                                                                            | 1.2                                                                                                          |
|   |                                                                                                                                                                                                                                              | 0000                                                                                                                                               | 0000                                                                                                                 |                                                                                                                       | www                                                                                    | 701011                                                                                 | J, W .                                                                                 | J 10 10 1                                                                               | , -                                                                                     |                                                                           |                                                                            |                                                                              |                                                          |                                                                                       |                                                                                            |                                                                                           |                                                                                           |                                                            |                                                                                         |                                                                                     |                                                                                 |                                                                                                              |
|   | AU1                                                                                                                                                                                                      | AU1                                                                                                                                                | AUI<br>AUI                                                                                                           | AIZ<br>7 AZ<br>AU1                                                                                                    | 3 BI<br>3 BI<br>7 TA                                                                   | 7 AA2<br>7 AZ<br>7 AZ                                                                  | ALG                                                                                    | 0 AW                                                                                    | 7 AI8                                                                                   | 3 BI<br>7 AZ<br>0 AV                                                      | 7 AZ<br>7 AZ                                                               | 3 BI<br>7 AZ<br>7 AZ                                                         | AU1                                                      | AUI                                                                                   | AU1                                                                                        | AU1                                                                                       | AU1                                                                                       | AU1                                                        | AI6                                                                                     | AI9                                                                                 | AAO<br>AAI1                                                                     | AZ<br>AZ                                                                                                     |
|   | AU104770<br>AU104809<br>AU104829<br>AU105180<br>AU105181<br>AU105181<br>AU105182<br>AU105184<br>AU105185<br>AU105188                                                                                                                         | 043//<br>04760<br>04762<br>04769                                                                                                                   | 02735<br>03115<br>03959                                                                                              | 87389<br>465869<br>02257                                                                                              | 463602<br>547258<br>313G08P                                                            | 06245<br>474463<br>400633                                                              | 99643<br>30890<br>81423                                                                | 245564<br>345455<br>96963                                                               | 62676<br>424284<br>625029                                                               | 762230<br>656447<br>832594                                                | 660002<br>816353<br>613076                                                 | 416671<br>456166<br>307654                                                   | 06277<br>07922<br>07923                                  | 05207<br>05889                                                                        | 05204<br>05205<br>05206                                                                    | 05182<br>05199                                                                            | 04612<br>04666                                                                            | 02601<br>03660<br>04342                                    | 50532                                                                                   | 20909<br>31157<br>773338                                                            | 507309<br>L1834<br>98147                                                        | 156727<br>585161<br>549857<br>797405                                                                         |
|   |                                                                                                                                                                                                                                              |                                                                                                                                                    |                                                                                                                      |                                                                                                                       |                                                                                        |                                                                                        |                                                                                        |                                                                                         |                                                                                         |                                                                           |                                                                            |                                                                              |                                                          |                                                                                       |                                                                                            |                                                                                           |                                                                                           |                                                            |                                                                                         |                                                                                     |                                                                                 |                                                                                                              |
|   | AU1<br>AU1<br>AU1<br>AU1<br>AU1<br>AU1<br>AU1<br>AU1                                                                                                                                                                                         | AU1<br>AU1                                                                                                                                         | AU10<br>AU10                                                                                                         | AI28<br>AZ/<br>AU10                                                                                                   | BI:                                                                                    | AA2(<br>AZ4<br>AZ4                                                                     | AI79<br>AL63<br>AA68                                                                   | AI6S                                                                                    | AI86<br>AZ4                                                                             | BI7<br>AZ6<br>AV8                                                         | AZ6<br>AZ8<br>AZ6                                                          | BI4<br>AZ4<br>AZ3                                                            | AU10<br>AU10                                             | AU10                                                                                  | AU10<br>AU10                                                                               | AU10                                                                                      | AU10<br>AU10                                                                              | AU10<br>AU10                                               | AI 66                                                                                   | AI92<br>AA53<br>AZ7                                                                 | AZ5<br>AA01<br>AI19                                                             | AZ4<br>AZ5<br>AZ6<br>AZ7                                                                                     |
|   | AU104809 A AU104829 A AU105180 A AU105181 A AU105181 A AU105182 A AU105184 A AU105184 A AU105185 A                                                                                                                                           | 04760<br>04760<br>04762<br>04769                                                                                                                   | )3115<br>)3959                                                                                                       | 37389<br>165869<br>)2257                                                                                              | 163602<br>547258<br>190332                                                             | )6245<br>!74463<br>!00633                                                              | 19643<br>10890<br>11423                                                                | 45564                                                                                   | 24284                                                                                   | 562230<br>56447<br>32594                                                  | 60002<br>16353<br>13076                                                    | 16671<br>56166<br>07654                                                      | 7922                                                     | 5207 I                                                                                | 5205 2                                                                                     | 5182 /                                                                                    | 4612 <i>1</i><br>4666 <i>1</i><br>4793 <i>1</i>                                           | 3660 <i>I</i><br>4342 <i>I</i>                             | 0532 v                                                                                  | 0909 v<br>1157 r<br>73338                                                           | 07309<br>1834 n<br>8147 c                                                       | 56727<br>85161<br>49857<br>97405                                                                             |
|   | AU104<br>AU104<br>AU105<br>AU105<br>AU105<br>AU105<br>AU105<br>AU105                                                                                                                                                                         | AU104<br>AU104<br>AU104<br>AU104                                                                                                                   | AU102<br>AU103<br>AU103                                                                                              | 9v07h<br>1M02<br>AU102                                                                                                | 6032<br>6031                                                                           | zq54d:<br>1M02!<br>1M01!                                                               | to74d(<br>AL630)<br>Vr41f(                                                             | 28228<br>1M008                                                                          | Wj27f(<br>1M02(                                                                         | 1M053                                                                     | 1M053<br>2M008<br>1M044                                                    | hasp(<br>1M025<br>1M000                                                      | AU1079                                                   | AU1052                                                                                | AU1052                                                                                     | 101051                                                                                    | \U1046<br>\U1046                                                                          | 101026<br>101036                                           | ve63c1                                                                                  | vo15h0<br>1j48a0<br>1m058                                                           | 1M034<br>1h01c0<br>1i51b1                                                       | 1M025<br>1M039<br>1M051<br>1M051                                                                             |
|   | 9 AU104809<br>9 AU104809<br>9 AU104829<br>0 AU105180<br>1 AU105181<br>2 AU105182<br>4 AU105184<br>5 AU105185                                                                                                                                 | 760                                                                                                                                                | 735<br>115<br>959                                                                                                    | 01.x<br>76P01<br>257                                                                                                  | 06257<br>97123<br>rucei                                                                | 10.r<br>92N11<br>57F06                                                                 | 02.x<br>08.s                                                                           | 366.5<br>30J12                                                                          | )4.x<br>)3M14<br>L02B0                                                                  | 19140<br>32C02<br>2594                                                    | 37L18<br>35K06<br>11G15                                                    | 001xn<br>68B20<br>9F22                                                       | 922                                                      | 07<br>189                                                                             | 4 0 6                                                                                      | 989                                                                                       | 93                                                                                        | 42                                                         | 97 x                                                                                    | 3.x<br>1.s<br>4L13                                                                  | 8F21<br>0.x                                                                     | 9D17<br>0G12<br>9008<br>3D08                                                                                 |
|   |                                                                                                                                                                                                                                              |                                                                                                                                                    |                                                                                                                      |                                                                                                                       |                                                                                        |                                                                                        |                                                                                        |                                                                                         |                                                                                         |                                                                           |                                                                            |                                                                              |                                                          |                                                                                       |                                                                                            |                                                                                           |                                                                                           |                                                            |                                                                                         |                                                                                     |                                                                                 |                                                                                                              |
|   |                                                                                                                                                                                                                                              |                                                                                                                                                    |                                                                                                                      |                                                                                                                       |                                                                                        |                                                                                        |                                                                                        |                                                                                         |                                                                                         |                                                                           |                                                                            |                                                                              |                                                          |                                                                                       |                                                                                            |                                                                                           |                                                                                           |                                                            |                                                                                         |                                                                                     |                                                                                 |                                                                                                              |
|   |                                                                                                                                                                                                                                              |                                                                                                                                                    | *                                                                                                                    |                                                                                                                       |                                                                                        |                                                                                        |                                                                                        |                                                                                         |                                                                                         |                                                                           |                                                                            |                                                                              |                                                          |                                                                                       |                                                                                            |                                                                                           |                                                                                           |                                                            |                                                                                         |                                                                                     |                                                                                 |                                                                                                              |
|   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                                                                                                                                                                                        | 798<br>799<br>800                                                                                                                                  | 794<br>795<br>796                                                                                                    | c 791<br>c 792<br>c 793                                                                                               | 787<br>C 788<br>789                                                                    | c 784<br>c 785<br>786                                                                  | c 781<br>c 782<br>c 783                                                                | c 778<br>c 779<br>c 780                                                                 | 775<br>C 776<br>C 777                                                                   | 772<br>773                                                                | 768<br>769<br>770                                                          | 765<br>766<br>767                                                            | c 763                                                    |                                                                                       | c 758<br>c 759                                                                             |                                                                                           | c 752<br>c 753<br>754                                                                     |                                                            |                                                                                         | c 744<br>c 745<br>c 746                                                             |                                                                                 | 737<br>c 738<br>c 739<br>c 740                                                                               |
|   | C 802 17.8<br>C 803 17.8<br>C 803 17.8<br>C 806 17.8<br>C 806 17.8<br>C 807 17.8<br>C 808 17.8<br>C 809 17.8                                                                                                                                 | 798 17<br>799 17<br>799 17<br>800 17                                                                                                               | 794 17<br>795 17<br>796 17                                                                                           | 790 17<br>791 17<br>792 17<br>793 17                                                                                  | 787 17<br>788 17<br>789 17                                                             | 784 17<br>785 17<br>786 17                                                             | 781 17<br>782 17<br>783 17                                                             | 778 17<br>779 17<br>780 17                                                              | 775 17<br>776 17<br>777 17                                                              | 17<br>17                                                                  | 17<br>17<br>17                                                             | 17<br>17                                                                     | 763 17<br>764 17                                         | 760 17<br>761 17<br>762 17                                                            | 758 17<br>759 17                                                                           | 755 17<br>756 17                                                                          | 752 17<br>753 17<br>754 17                                                                | 750 17<br>751 17                                           | 747 17.<br>748 17.                                                                      | 744<br>745                                                                          | 741<br>742                                                                      | 737<br>738<br>739<br>740                                                                                     |
|   | 802 17<br>803 17<br>804 17<br>805 17<br>806 17<br>807 17<br>808 17                                                                                                                                                                           | 798 17<br>799 17<br>799 17<br>800 17                                                                                                               | 794 17<br>795 17<br>796 17                                                                                           | 790 17.8<br>791 17.8<br>792 17.8<br>793 17.8                                                                          | 787 17<br>788 17<br>789 17                                                             | 784 17.8 785 17.8 786 17.8                                                             | 781 17.8<br>782 17.8<br>783 17.8                                                       | 778 17.8<br>779 17.8<br>780 17.8                                                        | 775 17.8<br>776 17.8<br>777 17.8                                                        | 17.8<br>17.8<br>17.8                                                      | 17.8<br>17.8<br>17.8                                                       | 17.8<br>17.8<br>17.8                                                         | 763 17.8<br>764 17.8                                     | 760 17.8<br>761 17.8<br>762 17.8                                                      | 758 17.8<br>759 17.8                                                                       | 755 17.8<br>756 17.8                                                                      | 752 17.8<br>753 17.8<br>754 17.8                                                          | 750 17.8<br>751 17.8                                       | 747 17.8<br>748 17.8<br>749 17.8                                                        | 744 18<br>745 18<br>746 18                                                          | 741 18<br>742 18<br>743 18                                                      | 737 18<br>738 18<br>739 18<br>740 18                                                                         |
|   | 802 17<br>803 17<br>804 17<br>805 17<br>806 17<br>807 17<br>808 17                                                                                                                                                                           | 798 17.8 1.1<br>799 17.8 1.1<br>799 17.8 1.1<br>800 17.8 1.1                                                                                       | 794 17.8 1.1<br>795 17.8 1.1<br>796 17.8 1.1                                                                         | 790 17.8 1.1<br>791 17.8 1.1<br>792 17.8 1.1<br>793 17.8 1.1                                                          | 787 17.8 1.1<br>788 17.8 1.1<br>789 17.8 1.1                                           | 784 17.8 1.1<br>785 17.8 1.1<br>786 17.8 1.1                                           | 781 17.8 1.1<br>782 17.8 1.1<br>783 17.8 1.1                                           | 778 17.8 1.1<br>779 17.8 1.1<br>780 17.8 1.1                                            | 775 17.8 1.1<br>776 17.8 1.1<br>777 17.8 1.1                                            | 17.8 1.1 17.8 1.1                                                         | 17.8 1.1<br>17.8 1.1<br>17.8 1.1                                           | 17.8 1.1<br>17.8 1.1<br>17.8 1.1                                             | 763 17.8 1.1<br>764 17.8 1.1                             | 760 17.8 1.1<br>761 17.8 1.1<br>762 17.8 1.1                                          | 758 17.8 1.1<br>759 17.8 1.1                                                               | 755 17.8 1.1<br>756 17.8 1.1                                                              | 752 17.8 1.1<br>753 17.8 1.1<br>754 17.8 1.1                                              | 750 17.8 1.1<br>751 17.8 1.1                               | 747 17.8 1.1<br>748 17.8 1.1                                                            | 744 18 1.1<br>745 18 1.1<br>746 18 1.1                                              | 741 18 1.1<br>742 18 1.1<br>743 18 1.1                                          | 737 18 1.1 5<br>738 18 1.1 5<br>739 18 1.1 5<br>740 18 1.1 5                                                 |
|   | 802 17.8 1.1 50 9<br>803 17.8 1.1 50 9<br>804 17.8 1.1 50 9<br>805 17.8 1.1 50 9<br>806 17.8 1.1 50 9<br>807 17.8 1.1 50 9<br>808 17.8 1.1 50 9<br>808 17.8 1.1 50 9<br>809 17.8 1.1 50 9                                                    | 798 17.8 1.1 50 9<br>799 17.8 1.1 50 9<br>799 17.8 1.1 50 9<br>800 17.8 1.1 50 9                                                                   | 794 17.8 1.1 50 9<br>795 17.8 1.1 50 9<br>796 17.8 1.1 50 9<br>797 17.8 1.1 50 9                                     | 790 17.8 1.1 50 9<br>791 17.8 1.1 50 9<br>792 17.8 1.1 50 9<br>793 17.8 1.1 50 9                                      | 787 17.8 1.1 50 9<br>788 17.8 1.1 50 9<br>789 17.8 1.1 50 9<br>789 17.8 1.1 50 9       | 784 17.8 1.1 50 9<br>785 17.8 1.1 50 9<br>786 17.8 1.1 50 9                            | 781 17.8 1.1 50 9<br>782 17.8 1.1 50 9<br>783 17.8 1.1 50 9                            | 778 17.8 1.1 49 9<br>779 17.8 1.1 49 13<br>780 17.8 1.1 50 9                            | 775 17.8 1.1 48 17<br>776 17.8 1.1 49 9<br>777 17.8 1.1 49 9                            | 17.8 1.1 46 9<br>17.8 1.1 46 14<br>17.8 1.1 46 14                         | 17.8 1.1 46 9<br>17.8 1.1 46 9<br>17.8 1.1 46 9                            | 17.8 1.1 44 12<br>17.8 1.1 44 17<br>17.8 1.1 45 17                           | 763 17.8 1.1 43 14<br>764 17.8 1.1 43 17                 | 760 17.8 1.1 39 17 761 17.8 1.1 43 9 762 17.8 1.1 43 9                                | 758 17.8 1.1 37 17<br>759 17.8 1.1 38 13                                                   | 755 17.8 1.1 33 10<br>756 17.8 1.1 34 13<br>756 17.8 1.1 34 13                            | 752 17.8 1.1 30 17<br>753 17.8 1.1 30 17<br>754 17.8 1.1 31 9                             | 750 17.8 1.1 30 10<br>751 17.8 1.1 30 17                   | 747 17.8 1.1 29 17<br>748 17.8 1.1 29 17<br>748 17.8 1.1 29 17                          | 744 18 1.1 50 13<br>745 18 1.1 50 13<br>746 18 1.1 50 14                            | 741 18 1.1 50 9<br>742 18 1.1 50 9<br>743 18 1.1 50 13                          | $\begin{array}{cccccccccccccccccccccccccccccccccccc$                                                         |
|   | 802 17.8 1.1 50<br>803 17.8 1.1 50<br>804 17.8 1.1 50<br>805 17.8 1.1 50<br>806 17.8 1.1 50<br>807 17.8 1.1 50<br>807 17.8 1.1 50<br>808 17.8 1.1 50<br>809 17.8 1.1 50                                                                      | 798 17.8 1.1 50 9<br>799 17.8 1.1 50 9<br>799 17.8 1.1 50 9<br>800 17.8 1.1 50 9                                                                   | 794 17.8 1.1 50 9<br>795 17.8 1.1 50 9<br>796 17.8 1.1 50 9<br>796 17.8 1.1 50 9                                     | 790 17.8 1.1 50 9<br>791 17.8 1.1 50 9<br>792 17.8 1.1 50 9<br>793 17.8 1.1 50 9                                      | 787 17.8 1.1 50 9<br>788 17.8 1.1 50 9<br>789 17.8 1.1 50 9<br>789 17.8 1.1 50 9       | 784 17.8 1.1 50 9<br>785 17.8 1.1 50 9<br>786 17.8 1.1 50 9                            | 781 17.8 1.1 50 9<br>782 17.8 1.1 50 9<br>783 17.8 1.1 50 9                            | 778 17.8 1.1 49 9<br>779 17.8 1.1 49 13<br>780 17.8 1.1 50 9                            | 775 17.8 1.1 48 17<br>776 17.8 1.1 49 9<br>777 17.8 1.1 49 9                            | 17.8 1.1 46 9<br>17.8 1.1 46 14<br>17.8 1.1 46 14                         | 17.8 1.1 46 9<br>17.8 1.1 46 9<br>17.8 1.1 46 9                            | 17.8 1.1 44 12<br>17.8 1.1 44 17<br>17.8 1.1 45 17                           | 763 17.8 1.1 43 14<br>764 17.8 1.1 43 17                 | 760 17.8 1.1 39 17 761 17.8 1.1 43 9 762 17.8 1.1 43 9                                | 758 17.8 1.1 37 17<br>759 17.8 1.1 38 13                                                   | 755 17.8 1.1 33 10<br>756 17.8 1.1 34 13<br>756 17.8 1.1 34 13                            | 752 17.8 1.1 30 17<br>753 17.8 1.1 30 17<br>754 17.8 1.1 31 9                             | 750 17.8 1.1 30 10<br>751 17.8 1.1 30 17                   | 747 17.8 1.1 29 17<br>748 17.8 1.1 29 17<br>748 17.8 1.1 29 17                          | 744 18 1.1 50 13<br>745 18 1.1 50 13<br>746 18 1.1 50 14                            | 741 18 1.1 50 9<br>742 18 1.1 50 9<br>743 18 1.1 50 13                          | $\begin{array}{cccccccccccccccccccccccccccccccccccc$                                                         |
|   | 802 17.8 1.1 50 9<br>803 17.8 1.1 50 9<br>804 17.8 1.1 50 9<br>805 17.8 1.1 50 9<br>806 17.8 1.1 50 9<br>807 17.8 1.1 50 9<br>808 17.8 1.1 50 9<br>808 17.8 1.1 50 9<br>809 17.8 1.1 50 9                                                    | 798 17.8 1.1 50 9<br>799 17.8 1.1 50 9<br>799 17.8 1.1 50 9<br>800 17.8 1.1 50 9                                                                   | 794 17.8 1.1 50 9<br>795 17.8 1.1 50 9<br>796 17.8 1.1 50 9<br>796 17.8 1.1 50 9                                     | 790 17.8 1.1 50 9<br>791 17.8 1.1 50 9<br>792 17.8 1.1 50 9<br>793 17.8 1.1 50 9                                      | 787 17.8 1.1 50 9<br>788 17.8 1.1 50 9<br>789 17.8 1.1 50 9<br>789 17.8 1.1 50 9       | 784 17.8 1.1 50 9<br>785 17.8 1.1 50 9<br>786 17.8 1.1 50 9                            | 781 17.8 1.1 50 9<br>782 17.8 1.1 50 9<br>783 17.8 1.1 50 9                            | 778 17.8 1.1 49 9<br>779 17.8 1.1 49 13<br>780 17.8 1.1 50 9                            | 775 17.8 1.1 48 17<br>776 17.8 1.1 49 9<br>777 17.8 1.1 49 9                            | 17.8 1.1 46 9<br>17.8 1.1 46 14<br>17.8 1.1 46 14                         | 17.8 1.1 46 9<br>17.8 1.1 46 9<br>17.8 1.1 46 9                            | 17.8 1.1 44 12<br>17.8 1.1 44 17<br>17.8 1.1 45 17                           | 763 17.8 1.1 43 14<br>764 17.8 1.1 43 17                 | 760 17.8 1.1 39 17 761 17.8 1.1 43 9 762 17.8 1.1 43 9                                | 758 17.8 1.1 37 17<br>759 17.8 1.1 38 13                                                   | 755 17.8 1.1 33 10<br>756 17.8 1.1 34 13<br>756 17.8 1.1 34 13                            | 752 17.8 1.1 30 17<br>753 17.8 1.1 30 17<br>754 17.8 1.1 31 9                             | 750 17.8 1.1 30 10<br>751 17.8 1.1 30 17                   | 747 17.8 1.1 29 17<br>748 17.8 1.1 29 17<br>748 17.8 1.1 29 17                          | 744 18 1.1 50 13<br>745 18 1.1 50 13<br>746 18 1.1 50 14                            | 741 18 1.1 50 9<br>742 18 1.1 50 9<br>743 18 1.1 50 13                          | $\begin{array}{cccccccccccccccccccccccccccccccccccc$                                                         |
|   | 802 17.8 1.1 50 9 AU104450<br>803 17.8 1.1 50 9 AU104515<br>804 17.8 1.1 50 9 AU104569<br>805 17.8 1.1 50 9 AU104569<br>806 17.8 1.1 50 9 AU104621<br>807 17.8 1.1 50 9 AU104621<br>808 17.8 1.1 50 9 AU104621<br>809 17.8 1.1 50 9 AU104640 | 798 17.8 1.1 50 9 AU104119<br>798 17.8 1.1 50 9 AU104281<br>799 17.8 1.1 50 9 AU104281<br>800 17.8 1.1 50 9 AU104284<br>801 17.8 1.1 50 9 AU104300 | 794 17.8 1.1 50 9 AU103944<br>795 17.8 1.1 50 9 AU104068<br>796 17.8 1.1 50 9 AU104060<br>796 17.8 1.1 50 9 AU104060 | 790 17.8 1.1 50 9 AUJUS2240<br>791 17.8 1.1 50 9 AUJUS827<br>792 17.8 1.1 50 9 AUJUS923<br>793 17.8 1.1 50 9 AUJUS924 | 787 17.8 1.1 50 9 AU102856<br>788 17.8 1.1 50 9 AU103053<br>789 17.8 1.1 50 9 AU103195 | 784 17.8 1.1 50 9 AU102336<br>785 17.8 1.1 50 9 AU102349<br>786 17.8 1.1 50 9 AU102609 | 781 17.8 1.1 50 9 AU102255<br>782 17.8 1.1 50 9 AU102322<br>783 17.8 1.1 50 9 AU102331 | 778 17.8 1.1 49 9 A1624785<br>779 17.8 1.1 49 13 BG975755<br>780 17.8 1.1 50 9 AU102241 | 775 17.8 1.1 48 17 AZ797985<br>776 17.8 1.1 49 9 AA872048<br>777 17.8 1.1 49 9 AI056171 | 17.8 1.1 46 9 AR150011<br>17.8 1.1 46 9 AR196905<br>17.8 1.1 46 14 R89517 | 17.8 1.1 46 9 AIS95812<br>17.8 1.1 46 9 AIS97960<br>17.8 1.1 46 9 AIS81936 | 17.8 1.1 44 12 BG422154<br>17.8 1.1 44 17 AZ32364<br>17.8 1.1 45 17 AZ325610 | 763 17.8 1.1 43 14 H22322<br>764 17.8 1.1 43 17 A2995124 | 760 17.8 1.1 39 17 AZ386752<br>761 17.8 1.1 43 9 AL3773<br>762 17.8 1 1 43 9 AA206602 | 758 17.8 1.1 37 17 AZ4/28100<br>759 17.8 1.1 37 17 AZ4/2810<br>759 17.8 1.1 38 13 BM398401 | 755 17.8 1.1 33 10 BE562917<br>756 17.8 1.1 34 13 BM396027<br>756 17.8 1.1 34 13 BM396027 | 752 17.8 1.1 30 17 AZ783172<br>753 17.8 1.1 30 17 AZ2864869<br>754 17.8 1.1 31 9 AT587417 | 750 17.8 1.1 30 10 BE539470<br>751 17.8 1.1 30 17 AZ610578 | 747 17.8 1.1 29 17 A2455946<br>748 17.8 1.1 29 17 A265737<br>740 17 8 1 1 29 17 A266737 | 744 18 1.1 50 13 B1599065<br>745 18 1.1 50 13 B1601558<br>746 18 1.1 50 14 BQ807914 | 741 18 1.1 50 AU106977<br>742 18 1.1 50 9 AU107585<br>743 18 1.1 50 13 BG975240 | 737 18 1.1 50 9 AU106146<br>738 18 1.1 50 9 AU106189<br>739 18 1.1 50 9 AU106217<br>740 18 1.1 50 9 AU106200 |
|   | 802 17.8 1.1 50 9 AU104450<br>803 17.8 1.1 50 9 AU104515<br>804 17.8 1.1 50 9 AU104569<br>805 17.8 1.1 50 9 AU104569<br>806 17.8 1.1 50 9 AU104621<br>807 17.8 1.1 50 9 AU104621<br>808 17.8 1.1 50 9 AU104621<br>809 17.8 1.1 50 9 AU104640 | 798 17.8 1.1 50 9 AU104119<br>798 17.8 1.1 50 9 AU104281<br>799 17.8 1.1 50 9 AU104281<br>800 17.8 1.1 50 9 AU104284<br>801 17.8 1.1 50 9 AU104300 | 794 17.8 1.1 50 9 AU103944<br>795 17.8 1.1 50 9 AU104068<br>796 17.8 1.1 50 9 AU104060<br>796 17.8 1.1 50 9 AU104060 | 790 17.8 1.1 50 9 AUJUS2240<br>791 17.8 1.1 50 9 AUJUS827<br>792 17.8 1.1 50 9 AUJUS923<br>793 17.8 1.1 50 9 AUJUS924 | 787 17.8 1.1 50 9 AU102856<br>788 17.8 1.1 50 9 AU103053<br>789 17.8 1.1 50 9 AU103195 | 784 17.8 1.1 50 9 AU102336<br>785 17.8 1.1 50 9 AU102349<br>786 17.8 1.1 50 9 AU102609 | 781 17.8 1.1 50 9 AU102255<br>782 17.8 1.1 50 9 AU102322<br>783 17.8 1.1 50 9 AU102331 | 778 17.8 1.1 49 9 A1624785<br>779 17.8 1.1 49 13 BG975755<br>780 17.8 1.1 50 9 AU102241 | 775 17.8 1.1 48 17 AZ797985<br>776 17.8 1.1 49 9 AA872048<br>777 17.8 1.1 49 9 AI056171 | 17.8 1.1 46 9 AR150011<br>17.8 1.1 46 9 AR196905<br>17.8 1.1 46 14 R89517 | 17.8 1.1 46 9 AIS95812<br>17.8 1.1 46 9 AIS97960<br>17.8 1.1 46 9 AIS81936 | 17.8 1.1 44 12 BG422154<br>17.8 1.1 44 17 AZ32364<br>17.8 1.1 45 17 AZ325610 | 763 17.8 1.1 43 14 H22322<br>764 17.8 1.1 43 17 A2995124 | 760 17.8 1.1 39 17 AZ386752<br>761 17.8 1.1 43 9 AL3773<br>762 17.8 1 1 43 9 AA206602 | 758 17.8 1.1 37 17 AZ4/28100<br>759 17.8 1.1 37 17 AZ4/2810<br>759 17.8 1.1 38 13 BM398401 | 755 17.8 1.1 33 10 BE562917<br>756 17.8 1.1 34 13 BM396027<br>756 17.8 1.1 34 13 BM396027 | 752 17.8 1.1 30 17 AZ783172<br>753 17.8 1.1 30 17 AZ2864869<br>754 17.8 1.1 31 9 AT587417 | 750 17.8 1.1 30 10 BE539470<br>751 17.8 1.1 30 17 AZ610578 | 747 17.8 1.1 29 17 A2455946<br>748 17.8 1.1 29 17 A265737<br>740 17 8 1 1 29 17 A266737 | 744 18 1.1 50 13 B1599065<br>745 18 1.1 50 13 B1601558<br>746 18 1.1 50 14 BQ807914 | 741 18 1.1 50 AU106977<br>742 18 1.1 50 9 AU107585<br>743 18 1.1 50 13 BG975240 | 737 18 1.1 50 9 AU106146<br>738 18 1.1 50 9 AU106189<br>739 18 1.1 50 9 AU106217<br>740 18 1.1 50 9 AU106200 |
|   | 802 17.8 1.1 50 9 AU104450<br>803 17.8 1.1 50 9 AU104515<br>804 17.8 1.1 50 9 AU104569<br>805 17.8 1.1 50 9 AU104569<br>806 17.8 1.1 50 9 AU104621<br>807 17.8 1.1 50 9 AU104621<br>808 17.8 1.1 50 9 AU104621<br>809 17.8 1.1 50 9 AU104640 | 798 17.8 1.1 50 9 AU104119<br>798 17.8 1.1 50 9 AU104281<br>799 17.8 1.1 50 9 AU104281<br>800 17.8 1.1 50 9 AU104284<br>801 17.8 1.1 50 9 AU104300 | 794 17.8 1.1 50 9 AU103944<br>795 17.8 1.1 50 9 AU104068<br>796 17.8 1.1 50 9 AU104060<br>796 17.8 1.1 50 9 AU104060 | 790 17.8 1.1 50 9 AUJUS2240<br>791 17.8 1.1 50 9 AUJUS827<br>792 17.8 1.1 50 9 AUJUS923<br>793 17.8 1.1 50 9 AUJUS924 | 787 17.8 1.1 50 9 AU102856<br>788 17.8 1.1 50 9 AU103053<br>789 17.8 1.1 50 9 AU103195 | 784 17.8 1.1 50 9 AU102336<br>785 17.8 1.1 50 9 AU102349<br>786 17.8 1.1 50 9 AU102609 | 781 17.8 1.1 50 9 AU102255<br>782 17.8 1.1 50 9 AU102322<br>783 17.8 1.1 50 9 AU102331 | 778 17.8 1.1 49 9 A1624785<br>779 17.8 1.1 49 13 BG975755<br>780 17.8 1.1 50 9 AU102241 | 775 17.8 1.1 48 17 AZ797985<br>776 17.8 1.1 49 9 AA872048<br>777 17.8 1.1 49 9 AI056171 | 17.8 1.1 46 9 AR150011<br>17.8 1.1 46 9 AR196905<br>17.8 1.1 46 14 R89517 | 17.8 1.1 46 9 AIS95812<br>17.8 1.1 46 9 AIS97960<br>17.8 1.1 46 9 AIS81936 | 17.8 1.1 44 12 BG422154<br>17.8 1.1 44 17 AZ32364<br>17.8 1.1 45 17 AZ325610 | 763 17.8 1.1 43 14 H22322<br>764 17.8 1.1 43 17 A2995124 | 760 17.8 1.1 39 17 AZ386752<br>761 17.8 1.1 43 9 AL3773<br>762 17.8 1 1 43 9 AA206602 | 758 17.8 1.1 37 17 AZ4/28100<br>759 17.8 1.1 37 17 AZ4/2810<br>759 17.8 1.1 38 13 BM398401 | 755 17.8 1.1 33 10 BE562917<br>756 17.8 1.1 34 13 BM396027<br>756 17.8 1.1 34 13 BM396027 | 752 17.8 1.1 30 17 AZ783172<br>753 17.8 1.1 30 17 AZ2864869<br>754 17.8 1.1 31 9 AT587417 | 750 17.8 1.1 30 10 BE539470<br>751 17.8 1.1 30 17 AZ610578 | 747 17.8 1.1 29 17 A2455946<br>748 17.8 1.1 29 17 A265737<br>740 17 8 1 1 29 17 A266737 | 744 18 1.1 50 13 B1599065<br>745 18 1.1 50 13 B1601558<br>746 18 1.1 50 14 BQ807914 | 741 18 1.1 50 AU106977<br>742 18 1.1 50 9 AU107585<br>743 18 1.1 50 13 BG975240 | 737 18 1.1 50 9 AU106146<br>738 18 1.1 50 9 AU106189<br>739 18 1.1 50 9 AU106217<br>740 18 1.1 50 9 AU106200 |
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 AUTHORS
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Tissue Procurement: Miklos Palkovits, M.D., Ph.D.

CDNA Library Preparation: Michael J. Brownstein (NHGRI), Shiraki

Toshiyuki and Piero Carninci (RIKEN)

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
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National Institutes of Health, Mammalian Gene Collection (MGC)
 EST
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BI462985.1 GI:15253641
 BI462985 43 bp mRNA linear EST 21-AUG-2603204504F1 NIH_MGC_97 Homo sapiens cDNA clone IMAGE:5270424 5',
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 mRNA sequence.
 Unpublished (1999)
 Homo sapiens
 AZ645161
AL780039
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AI414486 ma08f03.x
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 A1631068 tz32b08.x
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AZ825014 2M0100A06
AZ599457 1M0414L14
 AZ872959 2M0186F03
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 AUTHORS
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Query Match
Best Local Similarity
 Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LLAM11682 row: g column: 01
 50 bp DNA linear GSS 02-OCT-200 IN0127118R Mouse 10kb plasmid UUGC1M library Mus musculus genomic clone UUGC1M0127118 R, DNA sequence.
 Mus musculus

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus

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Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly

,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A.

and Wright,D.,Weiss,R.
 High quality sequence stop: 43.
 Mouse whole genome scaffolding with paired end reads from 10kb
 Unpublished (2000)
Contact: Robert B.
 AZ374770.1 GI:10488470
 Plate: 0127 row: I column: 18
Seq primer: CACACAGGAAACAGCTATGACC
Class: plasmid ends
 Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0.00
 Tel: 801 585 5606
Fax: 801 585 7177
 University of Utah Genome Center University of Utah
 plasmid inserts
 house mouse.
 308,
 quality sequence stop: 50.
Location/Qualifiers
 Conservative
 G
 USA
 /note="rogan: testis; Vector: pBluescriptR (modified /note="rogan: testis; Vector: pBluescriptR (modified pBluescript KS+); Site_1: BamHI; Site_2: SaII-xhoI (gtcgag); Oligo-dT primed using primer 5'-TTTTTTTTTTTTVN-3', size-selected for average insert size 2.2 kb and normalized to ROT 5. This is a primary library enriched for full-length clones and constructed using the Cap-trapper method (Carninci, in preparation). Library constructed by M. Brownstein (NTMH/NHGRI, National Institutes of Health). Note: this is a NIH_MGC Library."

B C 28 g 2 t
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 Biomedical Polymers Research Bldg., 20 S. 2030 E., SLC,
 /db_xref="taxon:
 /lab_host="DH10B"
/clone_lib="Mouse 10kb plasmid UUGC1M library"
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 GSS 02-OCT-2000
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 Gaps
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BASE COUNT
ORIGIN
 DEFINITION
 ORGANISM
 Query Match
 Best Local Similarity
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 19 GAGAGAGCGAGCGGGGGGGGGGGGGGGAAGGGGAAGCGCAAGAGAGA 68
 Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies,
 High quality sequence stop: 45.
 Contact: Robert Strausberg, Ph.D.
 NIH-MGC http://mgc.nci.nih.gov/.
 Plate: LLAM11515
 Unpublished (1999)
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 Homo sapiens
 mRNA sequence.
BI772215
 45 bp mRNA linear EST 25-SEP-2001
603056165F1 NIH_MGC_122 Homo sapiens cDNA clone IMAGE:5205425 5',
 found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
 National Institutes of Health, Mammalian Gene Collection (MGC)
 BI772215.1 GI:15763793
 cDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can
 (bases 1 to 45)
 Conservative
 (http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWD42 (gi|4732114|gb|AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."
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 /lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"/note="Vector: PWD42nv; Purified genomic DNA from M. musculus C57BL/6J (male) was obtained from the Jackson Laboratory Mouse DNA Resource
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Pred. No.
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 45 bp
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 2.5e+05;
 DB 17;
 15;
 Inc.
 Length 50
 Indels
 0;
 Gaps
 0
```

RESULT 3 BI772215

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Matches

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50

FEATURES

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COMMENT

JOURNAL

REFERENCE

AUTHORS TITLE

KEYWORDS

SOURCE VERSION ACCESSION

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BASE COUNT
 FEATURES
 COMMENT
 B
 REFERENCE
 SOURCE
 ORIGIN
 KEYWORDS
 VERSION
 ACCESSION
 DEFINITION
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 JOURNAL
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 CGGCGGTGGCAAGAGTAGCGGTGACGGCGGCGGCGGCGGCG 45
 Contact: Blaxter ML
Institute of Cell, Animal and Population Biology
University of Edinburgh
 AA842027
49 bp mRNA linear EST 02-MAR-1998
MBAFCE2D03T3 Brugia malayi adult female cDNA (SAW96MLW-BmAF) Brugia
malayi cDNA clone AFCF2D03 5', mRNA sequence.
 Seq primer:
 Genes expressed in adult female Brugia malayi
 Blaxter, M.L., Waterfall, M., Daub, J., Lizotte, M., Baron, L. and Jones
 Brugia malayi
 Similarity
 The ABI trace of this sequence can be viewed at http://www.sanger.ac.uk/brugia/AFC/MBAFCFZD03T3.html
 Email: mark.blaxter@ed.ac.uk
 Tel: +44 131 650 6760
Fax: +44 131 670 5450
 Ashworth Labs, King's Buildings, West Mains Road, Edinburgh, EH9
 Unpublished (1996)
 Onchocercidae; Brugia.
 Eukaryota; Metazoa; Nematoda; Chromadorea; Spirurida; Filarioidea;
 Brugia malayi.
 EST
 AA842027.1 GI:2923363
 AA842027
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 (bases 1 to 49)
 Conservative
 Conservative
 6
a
 library is available from genome@smith.edu."
a 23 c 2 g 24
 /lab_host="XLI-Blue MRF/"
/note="Vector: Lambda Uni-ZAP XR; Site_1: Eco RI; Site_2:
Xho I; Lymphatic filarial nematode parasite of humans.
MRNA was prepared from approximately 50 adult females
isolated from the peritoneal cavity of jirds and
 transcriptase and oligo(dT) followed by RNase H and DNA pol I. The library has 5 x 10E6 independent recombinants and the average insert size is -900bp.The library was constructed by Michelle Lizotte-Waniewski. The
 converted to double-stranded cDNA
 range 1-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 026. this is a NIH_MGC Library."
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 /organism="Brugia malayi"
 Clone_11b="Brugia malayi adult female cDNA (SAW96MLW-BmAF
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 1.6%;
75.6%;
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 0;
 Pred. No. 3.8e+05;
 Score 25;
 Score 25;
Pred. No.
 Mismatches
 Mismatches
 24 t
 DB 9;
 3.8e+05;
 DB 13;
 10;
 Length 49;
 Dr.S.A.Williams, email:
 Length 45
 Indels
 Indels
 using reverse
 code 026. Note:
0;
 0
Gaps
 Gaps
 0
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B

49

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DEFINITION
 Дb
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 JOURNAL
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 Matches
 Query Match
 AUTHORS
 ORGANISM
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 21 GAGAGCGAGCGGGCGAGCCGAGCGAAGGGGAAAGCGCAAGAGAGAG 69
 Local Similarity
 ш
 34;
 vulgare shoots germination Hordeum clone bags16a08, mRNA sequence.
AV833587
 Unpublished (2001)
Contact: Kazuhiro Sato
Research Institute for Bioresources
 Hordeum vulgare subsp. vulgare.
Hordeum vulgare subsp. vulgare
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooidea
 AV833587 K. Sato unpublished cDNA library:
 1 (bases 1 to 49)
1 (bases 1 to 49)
Whetten, R.W., Kinlaw, C.S., Retzel, E. and Sederoff, R.R.
The Pine Gene Discovery Project
 EST
 Email: rosswhet@unity.ncsu.edu
Seq primer: T3.
 Pinus taeda
 EST
 AI813244
 AI813244 49 bp mRNA linear 3G2 Pine Lambda Zap Xylem library Pinus taeda cDNA,
Okayama University, Barley Germplasm Center
 Barley EST sequencing project in NIG and Okayama Univ
 Sato,
 AV833587.1 GI:14525676
 Forest Biotechnology Group
North Carolina State University
 Contact: Ross Whetten
 Unpublished (1999)
 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Spermatophyta; Coniferopsida; Coniferales; Pinaceae;
 AI813244.1 GI:5424459
 loblolly pine.
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 (bases 1 to 49)
 919-515-780:
 of Forestry, NC State University, 6113 Jordan Hall, Raleigh
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 24
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/note="Vector: Lambda Zap; Site_l: EcoRI; Site_2: XhoI;
/note="Vector: Lambda Zap; Site_l: EcoRI; Site_2: XhoI;
Differentiating xylem was collected from the main stem of a 35-year old loblolly pine tree harvested during the growing season. RNA isolation and library preparation followed the methods of Allona et al., PNAS 95:9693-8,
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Pred. No.
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 3.8e+05;
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 DB 9;
 vulgare
 15; Indels
 Length 49
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 Hordeum vulgare subsp.
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 EST 22-JUN-2001
 Tracheophyta;
Pinus; Pinus.
 0;
 Pooideae
 of.
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BF970690
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 49
 21 GAGAGCGAGCGGAGCCGGAGCGAAGGGGAAAGCGCAAGAGAGAG 69
 34;
 Chuo 2-20-1, Kurashiki, Okayama 710-0046, Japan Email: kazsato@rib.okayama-u.ac.jp.
URL:http://www.rib.okayama-u.ac.jp/barley/
Sato,K., Saisho,D., Takeda,K., Shini,T. and Kohara,Y. Direct
 found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LLAM10005 row: i column: 16
 Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 49)
 602273861F1 NIH_MGC_84 Homo sapiens cDNA clone IMAGE:4361943 5',
 database:http://www.shigen.nig.ac.jp/barley/Barley.html.
 High quality sequence stop:
 Contact: Robert Strausberg, Ph.D.
 NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
 Homo sapiens
 BF970690.1 GI:12337905
 mRNA sequence.
 BF970690
 submission;
 Unpublished (1999)
 human
 Similarity
 cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
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 vulgare subsp. vulgare shoots
/tissue_type="shoots"
/dev_stage="germination"
_25 c 0 g 24 t
 /organism="Hordeum vulgare subsp. vulgare'/cultivar="Haruna Nijo"/db_xref="taxon:112509"
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 46
 Local Similarity
 μ
 GCGGCGGGACAGCGGCGGCGGGGACCGCGGGGGGGGCGCGCG 1382
 1 (bases 1 to 45)
Kohara,Y., Shin-1.T., Kimura,T., Narita,T., Jindo,T. and Takeda,H.
Medaka EST Project in Takeda's lab
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei; Acanthomorpha; Acanthopterygii; Percomorpha; Atherinomorpha; Beloniformes; Adrianichthyidae; Oryziinae; Oryzias.
 Oryzias latipes
 EST
 Center For Genetic Resource Information
 Contact: Tadasu Shin-i
 Unpublished (2001)
 Japanese medaka.
 BJ000572.1 GI:17361239
 ВJ00057
 mRNA sequence.
 BJ000572 MF01SSA cDNA Oryzias
 National Institute of Genetics
 Sakyo-ku, Kyoto, Kyoto 606-8502, Japan
Tel: 81-75-753-4081
Fax: 81-75-705-1113
 AV947640
AV947640 Nori Satoh unpublished cDNA library, young adult Ciona
 Kyoto University
 Contact: Nori Satoh
Department of Zoology
 Satoh, N., Satou, Y., Kohara, Y. and Shin-i, T. Expressed genes in Ciona intestinalis Unpublished (2000)
 Satoh, N.,
 Eukaryota; Metazoa; Chordata; Urochordata; Ascidiacea; Enterogona;
 Ciona intestinalis
 Email: satoh@ascidian.zool.kyoto-u.ac.jp
 Phlebobranchia; Cionidae; Ciona.
 Ciona intestinalis.
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 r EST 05-DEC-2001
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 Tumor Gene Index
Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
 Seq primer:
 Trace considered overall poor quality
 www-bio.llnl.gov/bbrp/image/image.html
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 AI701058.1 GI:4988958
 AI701058
 AI701058
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Location/Qualifiers
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/db_xref="taxon:8090"
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 3363
 0,:
Score 23.8; DB 9;
Pred. No. 6.4e+05;
 Std Error: 0.00
 30 g
 Mismatches
 0
t
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```
13 GCGAGGGAGAGCGAGCGGGGGGAGCGAGGGAAGGGAAAG 57
 Email: cgapbs-r@mail.nih.gov
Life Technologies catalog #: 11548-013
DNA Sequencing by: Washington University Genome
Clone distribution: NCI-CGAP clone distribution
found through the I.M.A.G.E. Consortium/LLNL at:
 AL/UIUS8 46 bp mRNA linear EST 17-DEC-1999 wc78c06.xi NCI_CGAP_Pan1 Homo sapiens CDNA clone IMAGE:2324746 3 similar to wP:C18D11.4 CE18515 RNA RECOGNITION MOTIF. ; contains MER22.t3 MSR1 repetitive element ;, mRNA sequence.
 NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anat
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 1111 Yata, Mishima, Shizuoka 411-8540, Japan
Tel: 81-559-81-6856
Fax: 81-559-81-6855
 /note="Organ: pancreas; Vector: pCMV-SPORT6; Site_1: Sal1; Site_2: Not1; Cloned unidirectionally. Primer: Oligo dT. Average insert size 1.72 kb. Life Technologies catalog #: 11548-013"
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/dev_stage="segmentation stage 20 - 25"
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Length 46;
 2 others
 Sequencing Center information can be
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0;

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 BASE COUNT
ORIGIN
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AUTHORS
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 23 GAGCGAGCGGGCGAGCCGAGCGAAGGGAAAGCGCAAGAGAGAG 69
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 AV955412 Nori Satoh unpublished CDNA Library, egg Ciona Intestinalis cDNA clone cieg08d15 5', mRNA sequence.
 Satoh, N., Satou, Y., Kohara, Y. and Shin-i, T. Expressed genes in Ciona intestinalis Unpublished (2000)
 31;
 Eukaryota; Metazoa; Chordata; Urochordata; Ascidiacea; Phlebobranchia; Cionidae; Ciona.

1 (bases 1 to 47)
 Ciona intestinalis
 Ciona intestinalis.
 AV955412.1 GI:19443711
 AV955412
 AV949200 47 bp mRNA linear EST 1.
AV949200 Nori Satoh unpublished cDNA library, larva Ciona
intestinalis cDNA clone cilv02g12 5', mRNA sequence.
 Sakyo-ku, Kyoto, Kyoto 606-8502, Japan
Tel: 81-75-753-4081
Fax: 81-75-705-1113
 Contact: Nori Satoh
Department of Zoology
 Kyoto University
 Ciona intestinalis
 AV949200
 Kyoto University
Sakyo-ku, Kyoto, Kyoto 606-8502, Japan
Tel: 81-75-753-4081
 Contact: Nori Satoh
Department of Zoology
 Unpublished (2000)
 Satoh, N., Satou, Y., Kohara, Y. and Shin-i, T. Expressed genes in Ciona intestinalis
 Phlebobranchia; Cionidae; Ciona.
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/tissue tvpe="whole animal"
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 Mismatches
 Mismatches
 g
 12;
 16;
 Indels
 Indels
 Length
 others
 EST 14-MAR-2002
 0
 EST 14-MAR-2002
 Ç
 Enterogona;
 Gaps
 0;
 0:
 밁
 δÃ
 ORIGIN
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 BASE COUNT
 COMMENT
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 SOURCE
 DEFINITION
 FEATURES
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 VERSION
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 AZ385990/c
 RESULT 13
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 TITLE
 AUTHORS
 source
 source
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 Email: satoh@ascidian.zool.kyoto-u.ac.jp.
Location/Qualifiers
 1 (bases 1 to 47)
Dunn, D., Aoyagi, A.,
 clone UUGC1M0144D16 R, DNA sequence.
 AZ385990 47 bp DNA linear GSS 02-OCT-200
 plasmid
 Dunn,D., Aoyagi,A., Barber,M., Beacorn,T., Duval,B., Hamil,C., Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly, Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A.
 Mus musculus
 AZ385990.1
 Seq primer: CACACAGGAAACAGCTATGACC Class: plasmid ends
 Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Erro
Plate: 0144 row: D column: 1
 University of Utah Genome Center University of Utah
 Unpublished (2000)
 Mouse whole genome scaffolding with paired end reads from 10kb
 and Wright, D., Weiss, R.
 Mammalia;
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 house mouse
 Similarity
 High quality sequence stop: 47
 Contact: Robert B.
 308, Biomedical Polymers Research Bldg., 20 S. 2030 E., SLC, UT
 801 585 5606
801 585 7177
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/tissue_type="whole animal"
/dev_stage="larva"
 note="Vector: pBluescript SK"
23 c 0 g 23 t
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 (http://www.jax.org/resources/documents/dnares/).
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 /strain="C57BL/6J"
 /organism="Mus musculus
 ligated to the blunt ends in high
 /lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"
 GI:10499690
 1.5%;
 Weiss
 Rodentia;
 0;
 Score 23.6; DB 10;
Pred. No. 7e+05;
 Std Error: 0.00
 Mismatches
 Sciurognathi; Muridae;
 14;
 Length
 Indels
```

GSS 02-OCT-2000

Murinae; Mus

Reilly

0;

Gaps

0;

molar excess.

The DNA

```
RESULT 14
AZ853064/c
 DEFINITION
 BASE COUNT
 Query Match
 Best Local Similarity
 source
 12 AGCGAGGGAGAGCGAGCGGAGCGAGGGAAGGGAAAG 57
 Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error:
Plate: 0156 row: K column: 04
Seq primer: CGTTCTAAAACGACGGCCAGT
Class: plasmid ends
 AZ853064
2M0156K04F Mouse 10kb plasmid UUGCIM library Mus musculus clone UUGC2M0156K04 F, DNA sequence.
 Dunn,D., Aoyagi,A., Barber,M., Beacorn,T., Duval,B., Hamil,C., Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly,M., Rose,R., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A.
 High quality sequence stop: 47
Location/Qualifiers
 Tel: 801 585 5606
Fax: 801 585 7177
 University of Utah Genome Center University of Utah
 Contact: Robert B. Weiss
 Unpublished (2000)
 Mouse whole genome scaffolding with paired end reads from 10kb
 and Wright, D., Weiss, R.
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus 1 (bases 1 to 47)
 Mus musculus
 AZ853064.1 GI:13040804
 plasmid inserts
 308,
 Conservative
 USA
 0
(http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.05 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The
 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWD42 (gil4732114|gb|AF129072.1], a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."
 /note-"Vector: PWD42nv; Purified genomic DNA from M. musculus C57BL/6J (male) was obtained from the Jack \,
 Laboratory Mouse DNA Resource
 /db_xref="taxon:10090"
/clone="UUGC2M0156K04"
 Biomedical Polymers Research Bldg.,
 /clone_lib="Mouse 10kb plasmid UUGCIM library"
 adaptored DNA was purified and size-selected for a 9.5 to
 /lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"
 /sex="Male"
 /strain="C57BL/6J"
 /organism="Mus musculus"
 1.5%;
 0;
 Score 23.6; DB 17; Length 47; Pred. No. 7e+05;
 Std Error: 0.00
 Mismatches
 14;
 Indels
 20 S.
 from the Jackson
 2030
 Murinae; Mus.
 0;
 田.,
 21-FEB-2001
 genomic
 SLC,
 TU
 0
```

REFERENCE

AUTHORS

KEYWORDS VERSION ACCESSION

ORGANISM

LOCUS

οy

Matches

ORIGIN

В

47

В Ş

COMMENT

JOURNAL

TITLE

FEATURES

```
FEATURES
 COMMENT
 REFERENCE
 SOURCE
 VERSION
 ACCESSION
 DEFINITION
 AZ862836/c
 ORIGIN
 KEYWORDS
 RESULT 15
 BASE COUNT
 COCUS
 JOURNAL
 TITLE
 AUTHORS
 ORGANISM
 Matches
 Query Match
 source
 12 AGCGAGGAGAGAGCGAGCGAGCCGAGCCAGGCAAGGAAGGGAAAG 57
 Local Similarity
 High quality sequence stop: 47.
 Class: plasmid ends
 Seq primer: CACACAGGAAACAGCTATGACC
 Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Err
Plate: 0170 row: N column: 0
 plasmid inserts
 AZ862836 47 bp DNA linear G55 21-FEB-200 2M0170M09R Mouse 10kb plasmid UUGC1M library Mus musculus genomic clone UUGC2M0170N09 R, DNA sequence.
 University of Utah Genome Center University of Utah
 Contact: Robert B
 Mouse whole genome scaffolding with paired end reads from 10kb
 Dunn, D., Aoyagi, A.,
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
 Unpublished (2000)
 and Wright, D., Weiss, R.
 Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reill,
M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A.
 Mus musculus
 AZ862836.1 GI:13060537
 louse mouse
 (bases 1 to 47)
 308,
 801 585 5606
801 585 7177
 Conservative
 0
a
 USA
(http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The
 /note="Vector: PWD42nv; Purified genomic musculus C57BL/6J (male) was obtained fr Laboratory Mouse DNA Resource
 adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWD42 (gil4732114 lgb|AF129072.1), a copy-number inducible derivative of plasmid Rl. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ambicillin resistance."
 /db_xref="taxon:10090"
/clone="UUGC2M0170N09"
/clone_lib="Mouse 10%b plasmid UUGClM library"
 /organism="Mus musculus'
/strain="C57BL/6J"
 Biomedical Polymers Research Bldg.,
 /lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"
 Location/Qualifiers
 and selected for ampicillin resistance. 0 g 24 t
 /sex="Male"
 69.6%;
 1.5%;
 Weiss
 Barber, M., Beacorn, T., Duval, B., Hamil, C
 0;
 Score 23.6; DB 17;
Pred. No. 7e+05;
 Std Error: 0.00
 Mismatches
 14; Indels
 Length
 20
 from the Jackson
 S. 2030 E.,
 DNA from M.
 47;
 GSS 21-FEB-2001
 0;
 Gaps
 SLC,
 0;
```

```
Query Match
 source
 12 AGCGAGGGAGAGCGAGCGAGCGAGCGAGGGAAGGGAAAG 57
 Local
 Contact: Robert B. Weiss
University of Utah Genome Center
University of Utah
Mr. 308, Biomedical Polymers Research Bldg., 20 S. 2030 E., SLC,
 Dunn,D., Aoyagi,A., Barber,M., Beacorn,T., Duval,B., Hamil,C., Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A. and Wright,D.,Weiss,R.
 AZ864870
 AZ864870 47 bp DNA linear 2M0174M10R Mouse 10kb plasmid UUGC1M library Mus clone UUGC2M0174M10 R, DNA sequence.
 High quality sequence stop: 47.
Location/Qualifiers
 Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0.00
Plate: 0174 row: M column: 10
 A2864870.1 GI:13064604
 Tel: 801 585 5606
Fax: 801 585 7177
 plasmid inserts
 Mouse whole genome scaffolding with paired end reads from 10kb
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
 Mus musculus
 Seq primer: CACACAGGAAACAGCTATGACC
 Unpublished (2000)
 Class: plasmid ends
 nouse mouse
 Similarity
 (bases 1 to 47)
 Conservative
 0
 USA
 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pwD42 (gil4732114)gblAF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."
 adaptored DNA was purified and size-selected for a 9.5 to 10.5\ \mathrm{kb} range using preparative agarose gel
(http://www.jax.org/resources/documents/dnares/). The DNA was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor oligonucleotides were ligated to the blunt ends in high molar excess. The
 Laboratory Mouse DNA Resource
 /note="Vector: PWD42nv; Purified genomic DNA from M. musculus C57BL/6J (male) was obtained from the Jackson
 /db_xref="taxon:10090"
/clone="UUGC2M0174M10"
/clone_lib="Mouse 10kb plasmid UUGC1M library"
 /organism="Mus musculus"
/strain="C57BL/6J"
 /lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"
/note="Vector: PWD42nv; Purified genomic DNA from M.
 /sex="Male"
 1.5%;
 0
 Score 23.6; DB 17; Length Pred. No. 7e+05;
 Mismatches
 14;
 Indels
 linear
 musculus genomic
 GSS 21-FEB-2001
 0
 Gaps
 UT
 0;
```

REFERENCE

AUTHORS

SOURCE KEYWORDS VERSION ACCESSION

ORGANISM

COMMENT

TITLE

FEATURES

밁 QΥ В

В

DEFINITION AZ864870/c RESULT 16

CUS

BASE COUNT ORIGIN

```
RESULT 17
AL676139
LOCUS
 COMMENT
 ORIGIN
 BASE COUNT
 FEATURES
 REFERENCE
 SOURCE
 VERSION
 DEFINITION
 ORIGIN
 KEYWORDS
 ACCESSION
 BASE COUNT
 Matches
 TITLE
 Best Local Similarity
 Query Match
 ORGANISM
 Matches
 Query Match
 JOURNAL
 AUTHORS
 Best Local Similarity
 1348 GGACAGCGGCGGCGGGGACCGCGGGGGGGGCGGCGGCAGAC 1388
 Taylor,R., Ashurst,J.L., Croning,M.D.R., Zorn,A.M. and Rogers,J. Sanger Xenopus tropicalis EST project 2002 Unpublished (2001)
 AL676139 XGC-gastrula Silurana tropicalis cDNA clone TGas053017
 30;
 Email: trop@sanger.ac.uk
Sanger Xenopus tropicalis EST project 2001
TROPICALIS_SEQUENCE_ID: TGas053o17.plcSP6
 Contact: Taylor R
Sanger Centre
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
 Silurana tropicalis
 EST
 AL676139.1 GI:19532513
 mRNA sequence.
 AL676139
 constructed by Aaron M. Zorn.
 Sequencing primer: PICSP6
This sequence is from a Xenopus Gene Collection (XGC) library
 western clawed frog
 Hinxton, Cambridgeshire, CB10 1SA, UK
 Xenopodinae; Silurana.
 (bases 1 to 45)
 Conservative
 Conservative
 0
 0
a
 adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of pWDA2 (gi|4732114|gb|AF129072.1), a copy-number inducible derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."
 was oligo dT primed from 5ug folly Ar RNA from stages 10-13 gastrulae. EcoRI-NotI cut cDNA was then ligated into pCS107 with EcoRI at the 5' end and NotI at the 3' end."
 /dev_stage="gastrula (stages 10.5-13 mixed)"
/lab_host="Escherichia coli XL1-blue"
/note="Vector: pCS107; Site_1: EcoRI; Site_2: NotI; cDNA
 /clone_lib="XGC-gastrula"
 /clone="TGas053o17"
 /organism="Silurana tropicalis"
/db_xref="taxon:8364"
 Location/Qualifiers
 1.5%;
 1.5%;
 14 c
 0;
 Score 23.6; DB Pred. No. 7e+05;
 Score 23.4; DB 9; Pred. No. 7.6e+05;
 30 g
 Mismatches
 Mismatches
 45 bp
 1+
 DB 17;
 mRNA
 DB 9;
 14;
 Length 45;
 Length
 linear
 EST 18-MAR-2002
 0;
 0;
 Gaps
 Gaps
 0
 0;
```

RESULT 18 AZ335579

```
뫄
 οy
 BASE COUNT
 FEATURES
 COMMENT
 REFERENCE
 SOURCE
ORGANISM
 KEYWORDS
 VERSION
 ACCESSION
 DEFINITION
 Query Match
Best Local (
 Matches
 JOURNAL
 AUTHORS
 source
 14
Email: ddunn@genetics.utah.edu
Insert Length: 10000 Std Error: 0.00
Plate: 0065 row: A column: 01
Seq primer: CACACAGGAAACAGGTATGACC
Class: plasmid ends
 Dunn,D., Aoyagi,A., Barber,M., Beacorn,T., Duval,B., Hamil,C., Islam,H., Longacre,S., Mahmoud,M., Meenen,E., Pedersen,T., Reilly,M., Rose,M., Rose,R., Stokes,R., Tingey,A., von Niederhausern,A. and Wright,D.,Weiss,R.
 Similarity
 High quality sequence stop: 49
 Tel: 801 585 5606
Fax: 801 585 7177
 84112,
 University of Utah Genome Center University of Utah
 Unpublished (2000)
Contact: Robert B.
 plasmid inserts
 Mouse whole genome scaffolding with paired end reads from 10kb
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus 1 (bases 1 to 49)
 Mus musculus
 AZ335579 49 bp DNA linear GSS 29-SEP-200 1M0065A01R Mouse 10kb plasmid UUGC1M library Mus musculus genomic
 AZ335579.1 GI:10404034
 clone UUGC1M0065A01 R, DNA sequence.
 house mouse
 308,
 Conservative
 0
 USA
 was hydrodynamically sheared by repeated passage through a 0.005 inch orifice at constant velocity. The sheared DNA was blunt end-repaired with T4 DNA polymerase and T4 polynucleotide kinase. Adaptor olligonucleotides were ligated to the blunt ends in high molar excess. The adaptored DNA was purified and size-selected for a 9.5 to 10.5 kb range using preparative agarose gel electrophoresis. Vector DNA was prepared from a derivative of plasmid R1. The vector was ligated with adaptors complementary to the insert adaptors and mith adaptors complementary to the insert adaptors.
 purified. The sheared, adaptored mouse DNA was annealed to adaptored vector DNA, and transformed into chemically-competent E. coli XL10-Gold (Stratagene) cells and selected for ampicillin resistance."
 (http://www.jax.org/resources/documents/dnares/).
 Laboratory Mouse DNA Resource
 musculus C57BL/6J (male) was obtained from the Jackson
 /organism="Mus musculus"
/strain="C57BL/6J"
/db_xref="taxon:10090"
 Biomedical Polymers Research Bldg., 20 S. 2030 E., SLC, UT
 /lab_host="E. Coli strain XL10-Gold, T1-resistant, F-"
/note="Vector: PWD42nv; Purified genomic DNA from M.
 /sex="Male"
 /clone_lib="Mouse 10kb plasmid UUGC1M library"
 /clone="UUGC1M0065A01"
 Location/Qualifiers
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 Weiss
 0;
 Score 23.4; DB 17
Pred. No. 7.7e+05;
 Mismatches
 DB 17;
 Length 49;
 GSS 29-SEP-2000
 0,
 Murinae; Mus
 Gaps
 The DNA
 0
```

```
Ωy
 DЬ
 ACCESSION
 DEFINITION
 AV672475/c
 RESULT 20
 ORIGIN
 BASE COUNT
 COMMENT
 SOURCE
ORGANISM
 RESULT 19
BQ577141
 FEATURES
 CUS
 REFERENCE
 DEFINITION
 KEYWORDS
 VERSION
 ACCESSION
 Locus
 Matches
 Query Match
 Best
 JOURNAL
 AUTHORS
 source
 15 GAGGGAGAGAGCGAGCGGAGCCGAGCGAAGGGAAAGCGCAAG 63
 Local Similarity
 AV672475 Nori Satoh unpublished cDNA library Ciona intestinalis cDNA clone citb5m21 5', mRNA sequence.
AV672475.1 GI:10110474
 Library was constructed by Debopam Chakrabarti DNA sequencing by: Washington University Genome Sequencing Center For information on obtaining a clone please contact: L. David Sibley (sibley@borcim.wustl.edu), Washington University
 Tang, K., Cole, R., Chakrabarti, D., Haywood, R., Clifton, S., Pape, D. Marra, M., Hillier, L., Martin, J., Wylle, T., Dante, M., Theising, B. Bowers, Y., Gibbons, M., Ritter, E., Bennett, J., Jentes, E., Ronko, I. Tsagareishvili, R., Belaygorod, L., Franklin, C., Carr, L., Grow, A., Maguire, L., Richey, J., Wadkins, J., Kennedy, S., Levinso, D., Waterston, R., Wilson, R. and Sibley, D. WatshU Plasmodium EST Project
 Seq primer: -40UP from Gibco
 Email: est@watson.wustl.edu
 Tel: 314 286 1800
Fax: 314 286 1810
 WashU Plasmodium EST Project
Washington University School of Medicine
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108, USA
 Unpublished (2001)
Contact: L. David Sibley
 Eukaryota; Alveolata; Apicomplexa; Haemosporida; Plasmodium.
 malaria parasite P. falciparum Plasmodium falciparum
 BQ577141 50 bp mRNA PfESToab14e02.yl Plasmodium falciparum 3D7 falciparum cDNA 5', mRNA sequence.
 BQ577141
 1 (bases 1 to 50)
 BQ577141.1 GI:21480458
 24 a
 Conservative
 /Clones were mass excised using the Exassist helper phage constructed by the polyar-Tract mRNA isolated by oligo d(T) priming of poly(A). The samples were isolated from mixed stage saponin(0.1%)-lysed p. falciparum 3D7 infected erythrocytes by the acidic guanidinium phenol chloroform method. The poly A+ RNA was isolated by the polyAr-Tract mRNA isolation system (promega, WI) using streptavidin Magnesphere particles. Directional cDNA jibraries were constructed by oligo d(T) priming of poly(A)+ RNA (5mg) into EcoRI and XhoI sites of 1 ZapII vector using the Zap cDNA inserts in the library was between 1.0 and 1.5kb. Clones were mass excised using the Exassist helper phage (Stratagene), the phagemids were preciptated with PEG 8000 and extracted with phenol/chloroform. Phagemid DNA was electroporated into DHIOB cells."
 /db_xref="taxon:5833"
 /organism="Plasmodium falciparum"
 Location/Qualifiers
 1.5%;
67.3%;
 ;
 Score 23.4; DB 14; Pred. No. 7.7e+05;
 Mismatches
 Indels
 Length 50;
 linear EST 19-JUN-2002 asexual cDNA Plasmodium
 EST 05-OCT-2000
 0
 Theising, B.,
 Gaps
 Pape,D.,
 0
```

VERSION

```
REFERENCE
AUTHORS
 RESULT 21
AA977986/c
 COMMENT
 SOURCE
 망
 Qy
 ORIGIN
 BASE COUNT
 REFERENCE
 KEYWORDS
 FEATURES
 COMMENT
 SOURCE
 DEFINITION
 KEYWORDS
 VERSION
 ACCESSION
 LOCUS
 TITLE
 Matches
 JOURNAL
 AUTHORS
 ORGANISM
 Best Local Similarity
 Query Match
 JOURNAL
 TITLE
 ORGANISM
 source
 source
 44
 15 GAGGGAGAGCGAGCGGGGGGGGGGGAGGGAAGGGAAAGC 58
 AA977986 49 bp mRNA linear EST 26-MAY-1998 oq55a06.sl NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1590226 3' similar to TR:000301 000301 KSRP. ;contains element MER22
 Ciona intestinalis
Ciona intestinalis
 repetitive element;, mRNA sequence.
 Kyoto University
Sakyo-ku, Kyoto, Kyoto 606-8502, Japan
Tel: 81-75-753-4081
 Contact: Nori Satoh
Department of Zoology
 Unpublished (2000)
 Satoh, N., Satou, Y., Kohara, Y. and Shin-i, T. Expressed genes in Ciona intestinalis
 Phlebobranchia; Cionidae; Ciona.
1 (bases 1 to 44)
 Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Christopher Moskaluk, M.D., Ph.D., Michael R.
Emmert-Buck, M.D., Ph.D.
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 49)
 EST.
 Eukaryota; Metazoa; Chordata; Urochordata; Ascidiacea; Enterogona;
 High quality sequence stop: 1.
Location/Qualifiers
 Trace considered overall poor quality Seq primer: -40ml3 fwd. ET from Amersham
 CDNA Library Arrayed by: Greg Lennon, Ph.D.
DNA Sequencing by: Washington University Genome Sequencing Center
Clone distribution: NCI-CGAP clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
www-bio.llnl.gov/bbrp/image/image.html
 Unpublished (1997)
 Tumor Gene Index
 NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
 Homo sapiens
 AA977986.1 GI:3155432
 cDNA Library Preparation: M. Bento Soares, Ph.D.
 81-75-705-1113
 Conservative
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 intestinalis.
 satoh@ascidian.zool.kyoto-u.ac.jp
 /Clone_lib="Nori Satoh unpublished cDNA library"
/tissue_type="whole animal"
/dev_stage="tailbud"
/note="Vector: pBluescript SK"
22 c 1 g 21 t
 /organism="Ciona intestinalis"
/db_xref="taxon:7719"
 Location/Qualifiers
 /clone-"citb5m2
/organism="Homo sapiens"
/db_xref="taxon:9606"
 1.5%;
 0
 Score 23.2; DB 10;
Pred. No. 8.3e+05;
 Mismatches
 Length 44;
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밁 ρ

37

```
BASE COUNT
ORIGIN
 COMMENT
 REFERENCE
 DEFINITION
 AU103717/c
 ORIGIN
 BASE COUNT
 FEATURES
 KEYWORDS
 VERSION
 ACCESSION
 RESULT 22
 Locus
 Matches
 Query Match
 TITLE
 ORGANISM
 Best Local Similarity
 Matches
 Query Match
 JOURNAL
 AUTHORS
 Best Local
 1343 GGCGGGGACAGCGGCGGGGGGGGGACCGCGG 1371
 source
 Suzuki,Y., Taira,H., Tsunoda,T., Mizushima-Sugano,J., Sese,J., Ha, Ha,T., Isogai,T., Tanaka,T., Morishita,S., Okubo,K., Sakaki,Y., Nakamura,Y., Suyama,A. and Sugano,S.
Diverse transcriptional initiation revealed by fine, large-scale mapping of mRNA start sites
 Suzuki,Y., Yoshitomo-Nakagawa,K., Maruyama,K., Suyama,A. and Sugano,S. Construction and characterization of a full length-enriched and a 5'-end-enriched conal library. Gene 200 (1-2), 149-156 (1997).
 Contact: Yutaka Suzuki
Department of Virology
Institute of Medical Science, University of Tokyo
4-6-1, Shirokanedal, Minatoku, Tokyo 108-8639, Japan
Email: ysuzuki@ims.u-tokyo.ac.jp
 HEP05140, mRNA sequence.
 AU103717 Sugano Homo sapiens cDNA library Homo sapiens cDNA clone
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 Homo sapiens
 EMBO Rep. 2 (5), 388-393
 AU103717.1 GI:13553238
 21270072
 Similarity
 (bases 1 to 50)
 Conservative
 Conservative
 0
 double-stranded cDNA was ligated to Eco RI adaptors (Pharmacia), digested with Not I and cloned into the Not and Eco RI sites of the modified pT7T3 vector. Library went through one round of normalization. Library constructed by Bento Soares and M. Fatima Bonaldo. " a 24 c 18 g 7 t
 /clone="HEP05140"
/clone=lib="Sugano Homo sapiens cDNA library"
/clone=lib="Sugano Homo sapiens cDNA library"
/note="Differential display comparison of untreated and dimethylfumarate treated U937 cells"
a 20 c 16 g 7 t
 /clone_lib="NCI_CGAP_Kid5"
/tissue_type="2 pooled tumors (clear cell type)"
/lab_host="DH10B"
 /organism="Homo sapiens"
/db_xref="taxon:9606"
 /clone="IMAGE:1590226"
 ocation/Qualifiers
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 1.4%;
 0; Mismatches
 Score 22.6; DB 9;
Pred. No. 1.1e+06;
 Score 22.6;
Pred. No. 1
 Mismatches
 (2001)
 1.1e+06;
 DB 9;
 mRNA
 14;
 Length 49;
 Length 50;
 Indels
 linear
 EST 30-AUG-2001
 0;
 Gaps
 Gaps
 0
```

밁

SOURCE

ORGANISM

Macaca mulatta

rhesus monkey.

KEYWORDS ACCESSION DEFINITION

EST

BQ807914.1 GI:22032123

BQ807914

**VERSION** 

COMMENT

Unpublished (1997)

Tumor Gene Index

NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap. National Cancer Institute, Cancer Genome Anatomy Project (CGAP),

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;

Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov

REFERENCE

Cercopithecinae; Macaca.
1 (bases 1 to 50)

AUTHORS

TITLE JOURNAL

BQ807914 LOCUS

BQ807914 50 bp mRNA linear EST: NISC\_kkl1g01.y1 NCI\_CGAP\_Brn72 Macaca mulatta cDNA clone IMAGE: 331264 5', mRNA sequence.

EST 31-JUL-2002

```
В
 QΥ
 BASE COUNT
 FEATURES
 COMMENT
 RESULT 2:
BG078033
 REFERENCE
 DEFINITION
 SOURCE
 KEYWORDS
 VERSION
 ACCESSION
 Query Match
 TITLE
 ORGANISM
 JOURNAL
 AUTHORS
 source
 22 AGAGCGAGCGGGGGAGCCGAGCGAAGGGGAAAGCGCAAGAGAGAG 69
 Local
 w
AGAGAGGGAAGAAGAGGGAGGAAGGGGAGAGGGAAAG 50
 National Institute on Aging/National Institutes of Health 333 Cassell Drive, Suite 4000, Baltimore, MD 21224-6820, USA Email: cdnaelgsun.grc.nia.nih.gov
This clone set has been freely distributed to the community. Please visit http://lgsun.grc.nia.nih.gov/cDNA/15k.html for details. Plate: H3022 row: G column: 12
Seg primer: -21M13 Reverse
 Verification and initial annotation of NIA mouse 15K cDNA clone set Unpublished (2001) Other_ESTs: H3022G12-3
 Contact: George J. Kargul Laboratory of Genetics
 Kargul,G.J., Dudekula,D.B., Qian,Y., Lim,M.K., Jaradat,S.A., Tanaka
,T.S., Carter,M.G. and Ko,M.S.H.
 H3022G12 5', mRNA sequel
BG078033
BG078033.1 GI:12560601
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
 Mus musculus
 EST
 H3022G12-5 NIA Mouse 15K cDNA Clone Set Mus musculus cDNA clone
 Similarity
 nouse mouse
 (bases 1 to 50)
 18
 quality sequence stop: 50
 /note="vector: psport1; Site_1: Sal1; Site_2: Not1; This clone is among a rearrayed set of 15,247 clones from 11 embryo cDNA libraries (including preimplantation stage embryos from unfertilized egg to blastocyst, embryonic part of E7.5 embryos, extraembryonic part of E7.5 embryos, extraembryonic part of E7.5 embryos, ond E12.5 female mesonephros/gonad) and one newborn ovary cDNA library. Average insert size 1.5 kb. All source libraries are cloned unidirectionally with Oligo(dT)-Not primers. References include: (1) Genome-wide expression profiling of mid-gestation placenta and embryo using a 15,000 mouse developmental cDNA microarray, 2000, Proc. Natl. Acad. Sci. U S A, 97: 9127-9132; (2) Large-scale cDNA analysis reveals phased gene expression patterns during preimplantation mouse developments.
 patterns during preimplantation mouse develolpment, 2000, Development, 127: 1737-1749; (3) Genome-wide mapping of unselected transcripts from extraembryonic tissue of 7.5-day mouse embryos reveals enrichment in the t-complex
 /clone_lib="NIA Mouse 15K cDNA Clone Set"
/sex="Clones arrayed from a variety of cDNA libraries"
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/db_xref="niaEST:H3022G12-5"
 /lab_host="DH10B"
 /dev_stage="Clones arrayed from a variety of cDNA
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 /organism="Mus musculus"
 Location/Qualifiers
 under-representation on the X chromosome, 1998, Hum Genet 7: 1967-1978."
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 Score 22.4;
Pred. No. 1.
 Mismatches
 1.2e+06;
hes 16;
 DB 12;
 mRNA
 Length 50;
 linear
 EST 26-JAN-2001
 0;
 Gaps
 0;
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FEATURES

Plate: LLAM11840 row: N column: Seq primer: M13RP1 reverse primer

(ABI).

/db\_xref="taxon:9544"

/organism="Macaca mulatta" Location/Qualifiers DNA Sequencing by: National Institutes of Health Intramural Sequencing Center (NISC)
Clone distribution: NCI-CGAP clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at: info@image.llnl.gov
Plate: LLAM11840 row: N column: 1

cDNA Library Arrayed by: The I.M.A.G.E. Consortium/LLNL cDNA Library Arrayed by: The I.M.A.G.E. Consortium/LLNL

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RESULT 25
BI547391
 Дb
 δõ
 COMMENT
 REFERENCE
 ORIGIN
 SOURCE
 VERSION
 ACCESSION
 DEFINITION
 BASE COUNT
 KEYWORDS
 LOCUS
 TITLE
 ORGANISM
 Matches
 JOURNAL
 AUTHORS
 Best Local Similarity
 Query Match
 32;
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Miklos Palkovits,
cDNA Library Preparation: Michael J.
Toshiyuki and Piero Carninci (RIKEN)
 NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
 B1547391 43 bp mRNA linear EST 05-SEP-2001 603197282F1 NIH_MGC_95 Homo sapiens cDNA clone IMAGE:5276516 5',
 Contact: Robert Strausberg, Ph.D.
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 43)
 Homo sapiens
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 BI547391.1 GI:15434703
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NotI; Site_2: EcoRV; Cloned unidirectionally. Primer:
Oligo dT. Average insert size 2.2 kb. Constructed by
Invitrogen. Note: this is a NCI_CGAP Library."
a 15 c 30 g 0 t
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Pred. No. 1.2e+06;
 Mismatches
 DB 14;
 M.D., Ph.D.
Brownstein (NHGRI), Shiraki
 Indels
 Length 50;
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0;

Gaps

0

Site\_1:

24

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BASE COUNT
ORIGIN
Search completed: March 13, 2003, 23:58:36 Job time: 2479 secs
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 1352 AGCGGCGGCGGGGACCGCGGGGGGGGGGGGGGGAG 1386
 source
 1 AGCGGAGGCGGGGCGCGCGGGGGCGCGTGAG 35
 CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov documen: 21 plate: LLAM11698 row: documen: 21
 High quality sequence stop: 23.
Location/Qualifiers
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/tissue_type="hippocampus"
/lab_host="DH108"
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 Length 43;
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 Gaps
 0;
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Qγ

Вb